

**The Ramakrishna Mission
Institute of Culture Library**

Presented by

Dr. Baridbaran Mukerji

RMICL—8

6

6966

BRIEF HISTORY
OF
BENGAL COMMERCE

PART II.

BY

KISSEN MOHUN MULLICK.

2. *Reithune Society Papers*

Calcutta:

PRINTED AT THE "HINDOO PATRIOT" PRESS,

No. 108, VARANASI GHOSHA'S STREET.

1872.

R.M.I.C LIBRARY

Acc No 6966

Class No. 200.000.000

Date:

Author: *Alfons*

Class: *200.000.000*

Cat: *1*

Bk. Card: *1*

Check: *Am*

CONTENTS.

	<i>Page.</i>
1.—COTTON TWIST	1
2.—COTTON PIECE GOODS	8
3.—WOOLLENS AND WOOLLEN STUFFS.....	14
4.—COPPER	18
5.—SPELTER.....	23
6.—OTHER METALS.....	30
7.—WINES AND SPIRITS.....	31
8.—BEER AND PORTER.....	33
9.—BRANDY	38
10.—OPIUM MONOPOLY.....	40
11.—INDIAN TEA	49

BENGAL COMMERCE.

I AM thankful to the public for the kind reception they have given to my humble work on Bengal Commerce; and feeling encouraged by it I propose to give in this paper, the statistics of certain commodities, which I had purposely omitted in my first from a fear of inflicting too much on the audience before which I read it. The same reason led me to observe brevity in noticing some of the articles referred to. These omissions it is now my object to supply, and I trust that the reader will find this second part not altogether devoid of interest.

The subjects I propose to treat of in this paper are cotton twist and yarn, cotton piece-goods, woollens, metals, wines and liquors, opium monopoly and Indian tea.

COTTON TWIST.

IF the foreign import of any article of universal demand has ever supplanted the indigenous trade in it in any country it is this article, which has totally superseded the local manufacture of cotton thread or twist. I can speak from a personal knowledge that at one time spinning by the simple process of a *Churka* worked by the soft hands of the weaker sex of our country, supplied not only the wants of almost all India, but of other countries also. In hamlets, towns and cities there was scarcely a hut or house, but the *Churka* was seen unceasingly working with an activity not now visible in any other employment among the females of native families. In truth, the spinning of cotton thread was the living of the widow, and the only means of luxury

with the same-covert. Both-classes whenever relieved during the day of household drudgery, were seen squatting on the floor in a group, busy with their little wheels, cheerfully spinning out the thread along with gossip, and thus beguiling the otherwise tiresome task. At other times they employed themselves in carding the cotton for that purpose. The finer and more even sorts were made by the hand by the means of a spinning-reel called *Tukoor*, the total produce by which process, was comparatively much smaller than what was manufactured by the *Churka*. The fruits of the happy labor of the female spinners at all times met with a ready sale both within and out of doors. You could see pedlars every day hawking at the door and picking up the yarns which sold by the weight and were valued according to their qualities, and paid for in ready money as soon as they passed the scale.* Quantities brought to markets by those of lower classes accustomed to move out, and by the agents of the more respectable spinners, could be had on stated days of fair.

It was rather hard for the stranger, who witnessed the operations of this branch of national industry in times past, to believe that countless cart-loads and boat-loads of cloths enough to serve for cargoes of vessels, independently of providing for a vast local consumption, were manufactured in India through the medium of the country thread thus produced ; but we have proofs before us in history that such *was* once the capability of India. As an instance in point I might refer to the case of the scattered and seemingly limited nature of the manufacture of silk in Italy. Some years ago an English traveller after visiting the mountains there observed that he had seen girls and adult women reeling and assorting

* This was a wooden scale like the Danish steel-yard, called "*Toola*," still used by dealers in waste-paper.

silks in such insignificant quantities here and there that it appeared to him almost incredible that Italy could possibly be in a position to supply so liberally all Europe with her valuable raw material, as she then actually did.

To the utter astonishment and misfortune of our poor spinners, the mule twist, as it was then called, made its appearance at English Houses about the year 1824. It was tried on the loom and found to answer the weaver's purpose well, especially on the score of its price as compared with that of country twist. For instance No. 40 on its first introduction sold as high as 12 to 14 annas per *morah*, or half a pound in weight, whereas the country twist at that time of a like quantity in *tolas* would fetch so much as Rs. 1-6 to Rs. 1-10 according to quality.

Highly tempting as the result of the experimental venture of the Manchester millers was, this new opening was vigorously pursued, and shipments from Liverpool followed on the heels of one another. The consequence, as may be imagined, soon proved disastrous. Rapid was the fall in value, as immense were the imports; and many a novice was entrapped and consigned to ruin. Ere long the prices came down to a level which left but a very moderate margin of profit to the shippers in England and the dealers here; 6 to 7 annas per *morah* for 40s and 50s became the ruling prices.

What was then the fate of our helpless spinners? For obvious reasons country twist gradually fell into disuse, the *Churka* and the *Takoor* hitherto turned for that purpose, were let alone, unhappily for them, for ever. The Brahmin's widows, however, in order to keep their bodies and souls together, took to spinning that little which was enough for *Pyta*, the sacred Brahminical thread. The making of it with genuine native thread was solely the prerogative of the Brahmin's widow, that made by other castes being scrupulous-

ly ignored. But now-a-days the *Pytas* made with spurious thread without reference to the caste of the makers have materially affected the use of the former kinds, and this has consummated the misfortune of the Brahmin's widow.

Prompted by fellow-feeling I have attempted to describe the above historical facts somewhat pathetically as to the widow's woe and misery, but of course without reference to the broader principle of "the greatest good of the greatest number," a point on which I shall presume to offer some remarks in connection with the next item.

In the following tabular statement I have endeavoured to show how the trade in English and foreign cotton twists and yarns has progressed in this country within the last 40 years. For these statistics as well as those of the other articles which shall follow, I am chiefly indebted to the elaborate and highly valuable works on the trade of Calcutta down to the years 1862 and 1863, compiled by Mr. H. W. I. Wood, the Secretary to the Bengal Chamber of Commerce, who has kindly placed them at my disposal. I feel also grateful to Mr. F. B. Peacock, lately Secretary to the Board of Revenue for the Lower Provinces, for kindly allowing me an access to the records of his office, which has enabled me to glean both old and recent statistics, and to complete the matters contained in these pages :

*IMPORT of Cotton Twist and Yarn from Great Britain and other ports from
1830-31 to 1870-71.*

YEARS.	Value of White and Grey twist from Great Bri- tain direct.	Value of British White and Grey twist via other ports.	TOTAL.	Value of colored twist and Yarn from Great Britain direct.	Value of British colored twist and Yarn via other ports.	TOTAL.	GRAND TOTAL.	REMARKS.	INCLUDED IN GRAND TOTALS.
1830-31.	29,48,737	1,13,771	30,62,508	[29,463	19,870	49,333	31,11,841	From Hambourgh Red Yarn Rs. 12,631 " Judda Egyptian " 48,361 " United States Twist " 222 " Red " 5,307	
1840-41.	66,57,321	93,525	67,508,46	11,98,634	41,452	12,40,086	79,90,932	" Hambourgh Red Yarn " 8,156 " Genoa " 5,419	
1850-51.	59,52,002	34,670	59,86,672	11,05,821	51,195	11,57,016	71,43,688	" Hambourgh " 27,887 " Borboun " 2,500	
1860-61.	81,53,756	1,31,854	82,85,610	19,89,635	38,906	20,28,541	1,03,14,151	" ... " ...	
1870-71.	98,16,721	3,77,941	1,01,94,662	42,000,72	62,259	42,62,331	144,56,993	" France T. Red Yarn " 4,950 " Alexandria " 20,136 " Trieste " 151	

It will be seen that Germany, and even the cotton growing countries, America and Egypt, were not backward in competing with Manchester, but they ultimately yielded to her. German twist was, however, at one time apprehended to be likely to affect English twist, but it would appear from the foregoing table that neither Germany nor any other foreign manufacturing district has hitherto been able to compete with the matchless power of Manchester, as regards her capability to extend her production to meet the increasing demands of all four corners of the world, as also to suit the peculiar requirements of all nations. Nor is she behindhand to consult the pockets of her customers by economizing the cost of her products.

Pursuant to a treaty between Great Britain and Netherlands, the rates of duty on goods imported and exported on foreign bottoms were altered in 1825. Under Regulation XV. of that year, foreign twist brought on Foreign bottoms was liable to a duty of 10 per cent. and on British bottom 5 per cent., whilst the duty on English twist was $2\frac{1}{2}$ per cent. on British and 5 on Foreign bottom. Under Act XIV. of 1836 the duties on English and Foreign twists were $3\frac{1}{2}$ and 7, and 7 and 14 per cent. respectively. According to Act XV. of 1844 the duty on twist of foreign manufacture was equalized with that charged on similar goods, the manufacture of the United Kingdom. But under Act IX. of 1845 a distinction was again made in the duties on the goods in question, viz. $3\frac{1}{2}$ and 7 on English and 7 and 14 per cent. on Foreign twists. Under the principle of free trade, Act VI. of 1848 equalized all duties on goods imported or exported on Foreign and British bottoms, and thus all twists and yarns have since then been subject to $3\frac{1}{2}$ per cent. *ad valorem*, generally. But, nevertheless, the English trade

here in twist remains quite unaffected, and it is now placed beyond doubt that Manchester will continue to supply us single-handed. Whether I am correct or not in my conjecture, the following list of the series of imports of twist during the last 40 years from Hamburgh will show.

From Hamburgh.

	Sa. Rs.		Co.'s Rs.
1830-31	... 12,631	1851-52	... 650
1831-32 to 1839-40.	Nil.	1852-53	... 11,409
	Co.'s Rs.	1853-54	} ... Nil.
1840-41	... 8,156	to 1856-57	
1841-42 to 1843-44.	Nil.	1857-58	... 1,900
1844-45	... 33,179	1858-59	... Nil.
1845-46	... 28,125	1859-60	... 9,500
1846-47	... 8,750	1860-61	... Nil.
1847-48	... 22,000	1861-62	... 12,000
1848-49	... 5,555	1862-63	} ... Nil.
1849-50	... 6,000	to 1870-71	
1850-51	... 27,887		

Whilst giving a short note on Twist in my first issue, I feared that the enormous import of Grey Dhooties from England would probably affect our Twist Market, but I now see that my suspicion yet remains to be borne out by actual results; for in 1869-70, the import of Dhooties and Sarries were 38,09,025, and in 1870-71 88,64,452 pieces showing an increase of 50,55,427 pieces of several dimensions not exceeding 10 yards each, and at the same time it is satisfactory to find that the total import of white twist in 1870-71 was of the value of 1,01,94,662 against 81,57,182 Rupees in 1869-70, or an increase in value of 20,37,480 Rupees in 1870-71. In 1870-71, there was also an increase in the import of colored yarns. In 1869-70 the money value of these descriptions

was 32,58,579 against 42,62,331 Rs. in 1870-71. I learn, however, from an influential native trader that these Dhooties have begun to tell effectively upon 40s. which, as he said, form the bulk of the imports of white twist.

COTTON PIECE GOODS.

In my previous paper I noticed that the value of the imports of British Goods had, within 30 years, down to 1869-70, risen from Rs. 97,60,911 to Rs. 8,12,54,482. It will now be seen from the following tabular statement that in 1870-71, there was a further increase of Rs. 2,19,77,052, or a total value of Rs. 10,32,31,534, as regards the British Goods alone. I have in this instance distinguished the white from colored Goods imported from Great Britain direct, and the same from those via other ports. Foreign imports are also given separately, which, however disproportionate to the former, fell off in the last year :

IMPORT of Cotton Piece Goods from Great Britain direct, and via other ports, also those from Foreign Ports direct and via British Ports.

YEARS.	Value of White and Grey piece Goods from Great Britain direct.	Value of British White and Grey piece Goods via other ports.	Value of Foreign White and Grey piece goods from foreign ports direct and via British ports.	TOTAL.	Value of colored piece goods from Great Britain direct.	Value of British colored piece Goods via other ports.	Value of Foreign colored piece goods from Foreign ports direct and via British ports.	TOTAL.	GRAND TOTAL.	REMARKS.
	Rs.	Rs.	Rs. (a)	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1869-70....	6,82,72,531	18,60,449	92,885	7,02,25,865	1,07,92,883	3,28,619	25,520	1,11,47,022	8,13,72,887	(a) Of this amount 14,400 was the value of Madras Goods imported in 1869-70 against 28,855 Rs. in 1870-71.
		7,01,32,980				1,11,21,502				
1870-71....	8,78,92,880	10,28,654	63,438	8,89,84,972	1,39,64,061	3,45,939	13,351	1,43,23,351	10,33,08,323	
		8,89,21,534				1,43,10,000				

The increase of value is principally in certain descriptions of British Goods, as is exhibited in the Table which follows, excepting the Grey Dhooties and Sarries already noticed under the preceding head.

As a contrast I have thought it proper to supply also the principal decreases, which it will be seen bear a much smaller proportion to the increases.

**STATEMENT exhibiting the relative proportions of Principal descriptions of Cotton Goods
imported from Great Britain during the two years under review, including Circuitous
Imports of British Cottons.**

DENOMINATIONS.	1869-70.		1870-71.		DENOMINATIONS.	1869-70.		1870-71.	
	PIECES.		PIECES.			PIECES.		PIECES.	
<p>WHITE</p> <p>{ Scarfs and Chadders -Figured Shirtings Mulls and Mediums Lappets and Lencoes</p> <p>GREY</p> <p>{ Shirtings Madapollams Tea cloth</p>	...	5,24,192	...	10,09,836	<p>•</p> <p>{ Jaconets Book Muslins Checks, Spots and Stripes Dhooties and Sarries Muslins }</p> <p>Grey Cambrics</p>	21,86,578	Decreases.	17,07,165	
	...	36,100	...	74,047		1,20,258		68,509	
	...	10,62,201	...	12,78,711		3,93,694		3,01,635	
	...	5,27,991	...	7,23,474		10,85,158		9,92,678	
	...	70,84,971	...	95,98,042		80,867		39,936	
<p>Colored.</p> <p>Printed Muslins and colored Lappets</p> <p>Colored Cambrics</p> <p>" Jaconets and mulls</p> <p>Turkey Red Shirtings</p> <p>Colored Scarfs</p>	...	24,79,536	...	31,69,572	<p>Colored.</p> <p>Chintz Prints and Printed Calicoes.... Printed Dhooties and Sarries.....</p>	9,000		5,700	
	...	3,66,271	...	9,76,868					
	...	87,142	...	3,05,151					
	...	4,80,147	...	7,68,878					
	...	3,77,625	...	6,61,402					
	...	1,01,662	...	2,20,690					
	...	1,95,175	...	3,07,419					

I need scarcely observe that the remarkable increase in the import of both plain and colored goods, is in those descriptions chiefly used by the ordinary and poorer classes of the native population. It is a well known fact that the condition of these classes is now greatly improved by the rising prices of their labor necessarily availed of by the Railways, the Public Works Department, and the extended growth and manipulation of certain articles of export. It is to be presumed that those customers in particular as a matter of course seldom or never could think of supplying their wants, unless they had been previously prepared with the means for so doing ; if so, all those descriptions of goods now apparently commanding an increasing demand, are in all probability sold for cash to the consumers in question. No blame therefore could be laid at the door of such consumers, as to their participating in the cause of the unsound position of this trade in reference to the acknowledged absence of a tangible metallic circulation in it. To what then is to be ascribed the present unsatisfactory state of things now forming the subject of incessant care and anxiety to those concerned ? In my humble opinion it is owing to the breach of that confidence which is placed or rather misplaced in the middle-men through whose hands the goods pass from the importer finally to the *bona-fide* consumer. If such be the case, I would beg to repeat what I said in my former paper that it is as much the duty of the importers, as of all the promoters of this our most important branch of traffic, to see to the indispensable necessity of an immediate re-organization of the system under which negotiations are now carried on.

The daily increasing expansion of this trade by the Railways which have now encompassed and brought within a circle all India, is manifest from page 48 of the memorandum of the interchange of trade recently published by that distinguished

Government Officer, Mr. Henry Rivett-Carnac, the Cotton Commissioner, who had the courtesy to favor me with a copy of it. It is now high time for that desirable change to which I have referred. To those who have a hold on others for their bad debts, I would most humbly suggest, that as it appears to me, it is a mistaken policy to guard themselves against casualties only for the time being, lending by the way to a systematic depredation committed in broad day-light before the sufferer's eyes wide open. It is universally deprecated and deplored, but strange to say, no effective remedial measure is yet adopted, or even thought of for checking a monstrous artifice based on preconcerted fraudulent motives. A permanent security and a permanent success are what ought to be the professed aim of all without distinction who are interested in this trade.

More I would not attempt to say, but leave this all-absorbing question to our good merchants and agents to judge for themselves, and to take a distant view of the point to which the existing evils are capable of being carried by the present highly mischievous and intolerable chronic abuse of feigned bankruptcy. It is really a pity, that while the raw material of the goods, and the high labor for their manufacture should have to be paid for in England in hard cash without any respite, the productions consigned to a distant region could not in fine be placed in the market except on unwarranted credit of persons whose means and principles are unknown to the seller.

As promised in another place, I shall add a few words on the subject of the complaint as to the almost death-blow which the English manufactures have given to our own.

The patriotism of some of our countrymen has often led them in sympathy with our spinners and weavers to inveigh against the overwhelming imports of Cotton twist

and piece-goods. It is true the spinner's *Churka* has been shelved, and the weaver's loom rolled up, and thus the fate of the one as that of the other is sealed for ever, but I beg to be permitted to ask those who lament for their sake, whether, under the most favorable circumstances, it could ever have been within the scope of India's own resources and capability to meet the wants of her vast population of the present age at such moderate rates as we are now used to.

Let not those patriots forget that backs once hardly covered with tattered rags that never knew a change, and naked shattered frames which shocked the decent eye and moved the pitiful heart, are now—thanks to Manchester Mills—sheltered under clean suits from head to foot. Indeed, it would be a downright ingratitude in us, if we disowned the deep obligation we owe to British manufacturers. If our food is dear, our raiment is cheap, and that is no small comfort to us generally.

It may not be deemed out of place if I add here that the peculiar taste of the Hindu Gentry of Bengal still patronizes the native weavers in their manufacture of *Dhooties* and *Sarries* of the finest texture, which are preferred more for luxury than for the sake of the severity of our climate, which, it is alleged, necessitates the use of them. Be that as it may, a greater regard to decency should suggest a better clothing both within and out of doors, than cob-web networks, especially when a more refined taste for our dresses in public society is prevailing.

WOOLLENS AND WOOLLEN STUFFS.

UNDER this head the principal item is Broadcloth adapted for the use of Europeans and natives, the latter wearing the commoner sorts, chiefly comprising German manufactures.

Annexed is a statement from which it will be perceived that the principal imports are under the head of Great Britain, inclusive of re-exports from other British as well as certain Foreign ports to some extent. Since late years Hamburgh has taken a part in this trade with us. Her direct imports commenced here in 1839-40, when 2,308 yards, value Rs. 4,442, or nearly 2 Rs. per yard, were brought to this market. They ceased till 1844-45 when 1,05,051 yards, value Rs. 1,47,530 were again imported.

COMPARATIVE Statement of Imports of Woollens.

YEARS.	GREAT BRITAIN DIRECT AND VIA OTHER PORTS.		HAMBURGH.		FRANCE.		REMARKS.
	YARDS.	VALUE	YARDS.	VALUE.	YARDS	VALUE.	
.....		Rs.		Rs.		Rs.	
1830-31.....	14,25,918	4,695	The totals of the first two columns include the amounts under the last two heads of places respectively.
1840-41.....	10,58,905	18,09,216	.....	.....	1,027	3,455
1850-51.....	9,87,441	12,05,228	82,985	80,170	2,733	4,779	
1860-61.....	8,11,565	13,25,236	1,728	10,192	318	1,879	
1870-71.....	34,33,516	32,65,639	.....	.....*	2,761	11,056
							*Apparently the direct exports to this side from Germany were suspended by the late Franco-German War.

In earlier times the imports of woollens into this country were principally of English manufacture; the cloths were stout and substantial and consequently lasting, being made of genuine wool, and their colors were fast. They sold much dearer than the goods offered in the market at present. The German cloths coming here direct and via England, have nearly superseded the ordinary qualities of English Spanish stripes, towns, half towns and Lady's cloths, which are mostly consumed by natives. The German goods are preferred from motives of economy, though the purchaser is conscious of the counterfeit nature of the cloths, which are made up with a larger share of vegetable fibres, such as Jute &c., and a layer of wool cleverly dyed with fancy colors. How far the Germans have succeeded in placing in the Indian markets their goods at uncommonly low cost, may at once be perceived from the value of the total imports of woollens in 1870-71 as noted down in the preceding statement. The total imports of woollens in 1870-71 were 34,33,516 yards valued at Rs. 32,65,639. Though these goods might have partially comprised other than broad cloths, yet on an average the value of a yard did not exceed 15 annas, and it is evident that the low prices of the German broad cloths tended to reduce the average value of the whole.

The average value of the French goods imported in the aforesaid period, as shown in the statement in question, was Rs. 4 per yard, from which the inference is that these goods are far superior to those of Germany.

The extensive use among natives at present of European wrappers of which the imports are large, is interfering with the consumption of medium qualities of colored woollens heretofore in vogue as wearing sheets.

COPPER.

MOST significant was the trade in this metal in earlier days, which was chiefly influenced by constant speculative transactions carried on here by opulent up-country bankers of those days, under advice from their correspondents in Mirzapore, then the ruling mart for almost all descriptions of staples imported by sea into this part of India. This metal was treated as one of the safest means for the investment of the floating capital of those bankers, and of the surplus income of the middle class of the people in the Upper Provinces, being easily convertible into cash.

The actual demand and consumption therefore of this staple were extensive, and hence its imports were heavy both from the United Kingdom and other parts of the world; but how this trade has since fluctuated will be seen in the following tabular statement, embracing details from 1830-31 to 1870-71. It will be observed that in this statement I have given the quantities of every description of copper imported from all parts of the world, and their average value per Factory maund, together with their total valuations :—

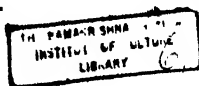
District	1950-51		1949-50		1948-49		1947-48		1946-47		1945-46		1944-45		1943-44		1942-43		1941-42		1940-41		1939-40		1938-39		1937-38		1936-37		1935-36		1934-35		1933-34		1932-33		1931-32		1930-31		1929-30		1928-29		1927-28		1926-27		1925-26		1924-25		1923-24		1922-23		1921-22		1920-21		1919-20		1918-19		1917-18		1916-17		1915-16		1914-15		1913-14		1912-13		1911-12		1910-11		1909-10		1908-09		1907-08		1906-07		1905-06																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population	Area	Population

A B S T R A C T .

ASSORTMENTS.	1830-31	1840-41.	1850-51.	1860-61.	1870-71.
	Sa. Rs.	C. Rs.	C. Rs.	C. Rs.	C. Rs.
Slabs, Cakes, Ingots and bars	23,27,765	11,99,993	27,66,330	19,13,907	47,81,359
Sheet and nail...	29,10,287	11,51,840	15,54,084	10,53,293	6,02,413
Old ...	8,16,844	1,54,677	1,89,605	1,40,897	39,715
TOTAL...	60,54,896	25,06,510	45,10,019	31,08,097	54,23,487

The imports of the period first noticed (1830-31) must have comprised a large portion of the late East India Company's investment in this metal, in which, as I stated in my first narrative, the company was to deal liberally. It will be observed in the following decade (1840-41) when the Company had ceased to trade, the deficiency in the imports of Coppers was very great.

The material falling off which now appears in this trade is in sheets and nails. In 1830-31 the value of the import of these was Sicca Rupees 29,10,287, equivalent to Company's Rupees 31,14,593 for 80,942 F. Maunds. After gradual diminutions their quantities dwindled down in 1870-71 to 3,491 maunds, the total value of which was Rs 6,02,413. In 1830-31 the average price for sheet and nail varied from Sa. Rs. 38-5 per F. maund for British to Sa. Rs. 31-2 for South American imports. In 1870-71 the prices averaged between Co's. Rs 27-5 and 28-7, according to the Custom House valuations. 6966.



The reasons which have led to the decrease in the import of these descriptions of Copper are the total cessation of ship-building on this side for some years since, the paucity in the number of vessels repaired, the yellow metal in lieu of Copper sheets being used in lining wooden vessels whenever occasion requires, and the almost supersession of these by iron ships.

6966.

Owing to the fall in the price for sheets, our braziers use them to some extent in casting brass wares.

In the manufacture of these wares the other descriptions of Copper are now-a-days very sparingly compounded with the alloy (spelter), a circumstance which has also tended to lessen the consumption of them in a great measure.

In former times the proportion of Copper mixed with spelter was two to one, which turned out more brilliant pots and utensils than those visible at present. Owing to the comparatively low value of the alloy, the proportions now are nearly half and half, which reduce the cost of the articles most in use, though dull in appearance.

I learn on enquiry that at Dyhat, the chief manufacturing district near Burdwan, the best brass can be produced with a mixture of two-thirds of American slab and one-third of Japan Copper, compounded with a fair proportion of spelter.

In Bengal there are several other places of manufacture, Kunchunuggur in the district of Burdwan, and Banaberriah in that of Hooghly, besides others of less celebrity.

In the province of Orissa there are several places where both brass and bell-metal wares are likewise manufactured, viz., at Balasore, Cuttuck, and Jellesur Patna in the district of Midnapore. They are of solid and substantial make, and often imported into Bengal, where they always find markets at better prices than those of Bengal manufacture.

In the upper provinces, Mirzapore was once noted for its numerous manufactories, which supplied almost all parts of those provinces, as well as Bengal. At the present moment the manufactures are on a very limited scale. The consumption, as I am informed by people engaged in this trade, has fallen off both in Bengal, and the North Western Provinces owing very likely to the present contracted means of the middle class of the natives.

The bell-metal wares are often preferred to brass wares by reason of their brilliancy, though they sell dearer than the latter. The best kinds are made in the Hooghly district with Russian Copper in proportion of 7 to 2 seers of block tin. There is no other admixture for making these wares. Their sales are comparatively less than those of brass wares.

While on the subject of metal wares, it may be worth while mentioning here that the Hindu females of all classes are peculiarly partial to the accumulation of both brass and bell-metal wares. Their own purchases are seldom in use, but hoarded up as personal property.

It may not be uninteresting to the foreign reader to know that the native females principally in Calcutta are almost daily accustomed to buy both useful and fancy wares from female hawkers, who are allowed a free access to them, for old and unserviceable clothes given in barter; and by these means their stock of wares is always on the rise.

The hawkers again sell the clothes at marts held every day in several parts of the town, to purchasers habituated to use such clothes after repairing them.

The brass wares have very frequently a wholesale market to a large extent on the occasion of the celebration of funeral and nuptial ceremonies, on which events *Ghurras* (pitchers), dishes both large and small, *Lotas* (small jugs), *Daburs*

(basins) are distributed among Brahmins, and also at marriages amongst relatives and neighbours of all classes.

Old Coppers always meet with a ready sale in consequence of their being the tearings from vessels, and therefore of a superior quality, and because, as it is customary, an allowance of 2 seers in a maund is made for wastage; and the price is 4 to 5 Rs. less than that of new coppers, slabs and cakes.

SPELTER.

THE history of this metal cannot fail to be generally interesting and in some measure, as I flatter myself, instructive as well.

Before 1820 it was imported into this country from China alone under the name of Tutenague, solely for the purpose of mixing it with copper for the manufacture of brass. Its quality was far superior to that subsequently imported from Europe and called Spelter. The tutenague sold for a much higher value, say 29 to 30* Current Rupees; but seldom or never, I believe, has it been noticed in the annals of commerce that the market for any staple had been so rapidly hurled down as to oust it entirely from a country which had once solely depended upon it, by the introduction of another identical article from a new foreign source.

About the year 1819 as I recollect, mines of this metal were discovered in Germany; and it would appear that in 1820-21 France and America first tried it in this market with small quantities, and the result of their experiment must have been marvellous to the shippers, the cost in Europe having been then £22 per Ton.

On a reference to the manuscript records of the late Board of Trade for 1820-21 and 1821-22 (those for subsequent

* A nominal coin valued at 116 for 100 Sicca Rupees. This metal still sells for factory weight and Current Rupees.

years not forthcoming) I traced the following statistics concerning this metal :—

IMPORT OF TUTENAGUE IN 1820-21.

From France Sa. Rs...	5,596
„ America „ ...	3,994
„ Penang and Eastward ...	24,351
„ China „ ...	9,36,011

Total Sicca Rs..... 9,69,952

for 41,161 Bazar maunds, averaging Sa. Rs. 23-9 per maund, or Current Rupees 27-5, per Factory maund :—

TUTENAGUE AND SPELTER, 1821-22,—

	Sa. Rs.
From United Kingdom...	1,78,054
„ France	28,238
„ Mauritius	5,781
„ Cape of Good Hope ...	4,940
„ Coast Malabar ...	35,369
„ Do. Coromandel... ..	9,047
„ Java... ..	726
„ Penang and Singapore	16,141
„ China... ..	4,67,179

Total Sa. Rs.,..... 7,45,475

for 48,129 Bazar maunds, averaging Sa. Rs. 15-7 per Bazar maund or Ct. Rs. 17-14 per Factory maund.

In former days the Custom House valuations were usually 10 to 15 per cent. less than the actual market value, and therefore the sale prices may have doubtless been 2 to 3 Rupees more than the Custom House valuations quoted above for the two years; thus in 1820-21 China

and Europe Spelters must have sold for about 30 Current Rupees per factory maund, as I remember, was the case. According to the European prime cost noted above, those from Europe may have been laid here with freight, charges, and duties, at nearly 9 Current Rupees per Factory maund, which left a margin of about 300 per cent. Most flattering as the result proved to the French and American Shippers in 1820-21, it roused the jealousy of the English speculators, who ventured out to a large extent for the first time in the next year, not to Calcutta alone, but also to the English colonies in the Southern and Indian Oceans, as well as the coasts of India as mentioned above. From England direct 1,78,054 and circuitously 55,137 Sa. Rs. worth arrived here in 1821-22. In that year cautious France sent only of the value of 28,238 Sicca Rupees, notwithstanding the very large profit she had earned in the year before.

How far these arrivals affected China will appear from the memos. given above for 1820-21 and 1821-22. In the first mentioned year she had sent us 9,36,011 Sa. Rs. worth, and hearing of the interference of other countries, she reduced her shipment to one half of what she had shipped in the previous year. The reason was that her cost by far exceeded that of the European ports. This assumption is confirmed by her abstaining soon after from consigning any further to this side. In the Custom House returns for 1829, I find that her exports had then totally ceased, as they have ever since.

What the result of the shipments from Europe was in 1821-22, is apparent from the quotations given above, viz. a fall of about 10 Ct. Rs. per Factory maund, as compared with the value of the preceding year. This result even was no little tempting for England's speculative propensity.

The notable antecedents since then of this trade are astounding, awfully disastrous as the consequence was during the next 3 or 4 years ; for the fall above referred to did not rest there ; but the staple was doomed to go down much more sensibly yet, as will be seen in the sequel.

A Joint Stock Company was formed in England about the year 1824, composed of certain wealthy and influential East India Merchants in London of those days. It monopolized for a limited period the entire produce of the German mines for a certain consideration.

Overwhelming shipments by the Company then began to arrive here one after another, to the consignment of Messrs. Fairlie Fergusson & Co., then a first rate firm in Calcutta. The market drooped by degrees from day to day, and several native non-commercial millionaires of the city were tempted to speculate in it by the extraordinary fall in the value of a staple, the investment in which was thought unusually safe from a recollection of the price which had not long before ruled for the China kind. They commenced with 18 Rs. and went on deeper and deeper averaging their purchases, till the prices came down to 8 Ct. Rs. the maund, when a complete prostration was the consequence, and further support on their part was impracticable.

The shipments in the meantime to the firm I have named, continued without intermission, and the arrivals were piled up mountain high on the spacious compound of the agents' house on the strand ; till they reached an extent of about six lacs of maunds. Sales were out of the question. The dealers were struck with a dread ; and felt alarmed to approach the article. Their immediate wants were supplied hand to mouth from other sources ; and a total stagnation was the case when the extensive holders manifested any desire to parcel out even in dribblets. Resolved as at last they felt

to rid themselves of what had become almost a drug in the market, the agency of that prince of banians and merchants, Babu Mutty Lall Seal, was resorted to, in or about the year 1827. He persuaded some of the then leading up-country opulent bankers to club together to buy up the whole stock in a lot. His recommendation was based on the grounds, that as the price had come down to a level which was an opposite extreme of the former extravagant quotations, and that further import had ceased, owing to the immense loss which had attended the speculations of the shippers; therefore patiently holding the goods on hand for a time was all that was requisite for ensuring desirable profits. A bargain was then struck, and struck at a ruinous rate indeed! The terms were Ct. Rs. 4-8 per Factory maund, at a prompt of 7 months, under a discount of 10 per cent. per annum, if paid for in the meantime. These conditions still obtain in the market.

The prophecy of the Babu was fully verified. A reaction was the immediate consequence, and the purchasers succeeded in relieving themselves of the stock, though slowly both on the spot and at Mirzapore, at very moderate profits, but not before 5 or 6 years.

The cost then in Europe fell to about £18 per ton, and limited quantities were tried here again, and direct shipments made their appearance from Hamburgh. Hence the prices did not rally much even in 1830-31, when the Calcutta Custom House valuation was still Ct. Rs. 5-2 as will be seen in the subjoined statement of imports and valuations from 1830-31 to 1870-71. It will show how this market varied during the space of 40 years; the largest import was in the last year, 1,36,000 Factory maunds.

IMPORT of Spelter at Calcutta from 1830-31 to 1870-71.

FROM WHENCE IMPORTED.	1830-31.		1840-41.		1850-51.		1860-61.		1870-71.	
	Quantity in Barar Maud.	Value Sa. Rs.	Quantity in Indian Mds.	Value Co.'s Rs.	Quantity in Indian Mds.	Value Co.'s Rs.	Quantity in Cwt.	Value Co.'s Rs.	Quantity in Cwt.	Value Co.'s Rs.
Great Britain ..	65,463	3,21,147	54,895	3,88,213	66,088	4,62,737	52,970	7,47,347	90,086	10,06,048
France ..	7,028	32,909	...	...	4,941	38,924	...	...	...	...
Hamburgh ..	689	3,229	4,502	31,112	10,127	70,892	1,803	20,130	...	...
North America..	...	...	...	...	1,219	8,538	...	...	...	...
United States ..	605	2,725	...	...	...	...	...	...	...	...
Mauritius ..	...	...	1,417	10,629	...	...	...	...	...	...
Borbona ..	...	...	...	...	...	5	...	...	...	...
Penang ..	371	1,812	...	...	...	...	...	...	...	...
Pegu ..	...	...	...	...	...	...	...	...	...	...
Bombay ..	...	...	272	1,636	...	...	...	...	28	424
Madras ..	255	1,382	...	...	145	1,015	...	...	470	5,170
Chittagong ..	...	...	...	...	...	...	118	1,980	...	...
Total	74,409	3,63,204	61,086	4,31,690	82,520½	5,82,111	54,891	7,68,457	90,603	10,11,927
	81,849 F. Mds.	@ Ct. Rs. 5-2 p. Md.	67,194 F. Mds.	Ct. Rs. 7 per Md.	90,773 F. Mds.	Current Rs. 6-15 p. Md.	82,336 F. Mds.	Current Rs. 10-2 p. Md.	1,35,904 F. Mds.	Current Rs. 8-1 p. Md.

I feel induced not to part with this subject without offering a few of my humble observations bearing on the general principles of commerce, which the antecedents of this article of trade suggest.

The unprecedented fluctuations in this trade teach us the necessity of consulting the statistics of every important article especially that of foreign import. This metal, as I have already stated, was in early days used only as an alloy of copper, and this in a limited proportion. In 1821-22 the total import of unmanufactured copper was 1,03,056 Bazar maunds including nails, and if the whole quantity had been melted for brass with the requisite proportion of spelter, 51,500 Bazar maunds only would have been required of the latter for that purpose. This was evident from the quantity imported at Calcutta from China in 1820-21, that is to say, 41,000 Bazar maunds.

Had the English shippers ascertained the extent of the demand and consumption in this country, they would very naturally have avoided the most lamentable consequences of too much covetousness produced by the delusive accounts of others' success.

On the other hand had our local speculators been sagacious enough to question the possibility of the continuance of imports on most liberal scales from new ports in the face of a drooping market, imports which by far exceeded the actual local demand, they certainly would not have relied simply on a comparison of the price of the new article with that of China. Unfortunately statistics are thrown to the winds, when ambition prompts specious speculations.

I should not omit mentioning here that our local English merchants kept themselves aloof, apparently from a knowledge of the vast room left between the European cost and the sale prices here and of the actual consumption on this side.

OTHER METALS.

I FEAR I have dwelt too long upon the history of the two preceding metals; and shall therefore place before the reader at one view the statistics of the remaining principal ones in a tabular form, concluding with such remarks as may be called for.

Years.	Value of Block tin.	Value of tin Plates.	Value of Patent metals.	Value of Lead.	Value of all descriptions of Iron.	Value of Steel.	Value of Quick-silver.	Value of Hardware and Cutlery.	Value of Ironmongery, machinery &c.	REMARKS.
1830-31.	3,28,961	51,003	.....	1,27,738	6,79,047	55,048	1,87,005	3,96,154	1,73,449	
1840-41.	4,81,706	54,617	.....	3,19,324	17,70,820	31,242	1,76,014	5,07,941	5,13,042	
1850-51.	5,02,213	1,35,385	1,32,163	2,19,424	17,23,681	27,221	1,09,863	5,95,776	11,58,100	
1860-61.	7,20,659	1,45,596	8,40,484	1,58,767	14,41,269	1,42,360	98,074	13,45,762	11,08,67,213	
1870-71.	8,85,226	1,10,609	10,46,437	4,97,168	20,98,154	1,91,837	57,460	16,86,731	92,45,923	
										* Including lead ore and solder, value Rs. 22,002.
										1966

IMPORTS of various metals from 1830-31 to 1870-71.

Of the foregoing items, those worthy of remark are Block tin, Patent metals, Lead, Iron, Hardware, Cutlery, Iron-mongery and Machinery, all of which show gradual increase since the commencement of the periods under review. The most striking advance is in Iron-mongery and Machinery, the total value of which rose from Sa. Rs. 1,73,449 equal to Co.'s Rs. 1,85,012, in 1830-31, to Rs. 1,03,67,213, in 1860-61, but in 1870-71 it fell again to Rs. 92,45,923. The value must have been swelled up by the Railway iron-works and machinery, as a sudden rise in it took place in 1855-56, viz. 1,14,96,515 against 36,04,970 Rs. in 1854-55. It was about the former year that the Railway works were in full operation.

The only falling off worthy of notice in the last official year was in quicksilver and tin plates.

WINES AND SPIRITS.

IN THE time of the late East India Company, the commanders of its Indiamen, who were all gentlemen of high respectability, used to bring out annually different sorts of the best wines, liquors and spirits, and beer and porter of the most favorite marks of those days; such as Paxton and Majoribanks, Tod and Bosanquet, Carbonell, Cockburn, Gladstain Henessey, Martell, Dunbar, Hodgson, and Barclay and Perkins. These wine merchants and brewers were indebted for the repute of their wines and malt liquors to the Commanders of the Company's Ships, who one and all on arrival here moved in the high circles of English Society of that period. The fact of the wines and spirits having been brought out by them was in itself a sufficient recommendation to the European customers of rank and position.

The wines then used to be brought out both in wood and in bottles. Among the wines Madeira was preferred to

any other. It was largely consigned here by the East India Company to the Government, and at the same time formed a part of the investments of the Captains of the Indiamen on their own account. Extensive quantities in wood used to be also imported here by the captains and super-cargoes of Portuguese vessels direct from Madeira and Lisbon. The total quantity imported in 1820-21 was 2216 pipes, value Sa. Rs. 5,04,004.

Sherry or rather Cadiz sherry, as it was at first called, made its appearance in India about the year 1823. It gradually came into fashion, and in a manner has now displaced Madeira as will appear from the annexed statement. At the commencement of its introduction two sorts of sherry were in use, golden and pale, and in lieu of the former, dark colored was in vogue for a time. Of late the pale kind has taken the place of the others, and the value of the import of this wine reached in 1840-41, 7,18,762, Rs. but fell off in the last official year to 5,30,637 Rs. as may be seen in the statement I have referred to.

Some time after the ratification of the old Commercial Treaty between Great Britain and France in 1815, the French navy was reduced, and the captains of French war-ships were permitted by that Government to trade on their own account in merchant vessels in India as well as other parts of the world about the year 1817. These naval officers came out here with extensive investments of French wines and spirits from Bordeaux and Nantes, among other merchandize. In course of time low French wines and spirits were placed in this market in abundant quantities. Common light clarets and brandies sold as low as 3 to 4 and 7 to 8 Rupees the dozen respectively, the customs duties then having been under Regulation XV. 1825, 10 per cent. on wines and 20 on spirits equally on British and foreign manufactures,

besides a smaller police duty on spirits. Under Act XIV. 1836 the duties on wines and liquors imported on British bottoms were 19 and on foreign 20 per cent, and on spirits consolidated duties of 9 and 16 annas per imperial gallon were levied.

The mischief caused by the increased import of these low wines and spirits to the health of the soldiers and sailors among other Europeans, was brought to the notice of the Government by medical officers in the service, and therefore under Act IX. of 1845 the duties on wines and liquors were raised to one rupee per imperial gallon imported on British and two rupees on foreign bottoms, and $1\frac{1}{2}$ and 3 rupees on spirits respectively.

The imports of brandy fell off till 1850-51 after which the value rose to Rs. 6,89,085 against 5,45,748 Rs. in 1840-41 and in 1860-61 it again went up to Rs. 7,34,411. By Act X. of 1860 the duties on wines and spirits were doubled viz. 2 and 3 Rs. per gallon, without reference to colors of vessels. As to the effect this increased duty produced upon brandy alone, as regards its value of imports, I would refer the reader to the statement itself, reserving my observations on this point till I come to the proper place.

BEER AND PORTER.

It may be worth while adding here a short statistical account of beer and porter.

As I have said Hodgson's beer was preferred to any other mark, and would be imported in Butts and Hogsheds and bottled off here chiefly by English coopers. The English cost was 22s per ton of 4 Hogsheds.

Allsopp's stout made its appearance here in the year 1828 or 1829, and though its quality was approved, a large proportion of its arrivals would be rejected owing

to its having been of a light body and not adapted for this climate. The quality afterwards improved much and consequently was esteemed by customers; though many still continued partial to Hodgson's; one of whose relatives was his sole agent in Calcutta. About the year 1880, when his stock fell too low to meet the demand and consumption at the time, he raised his price too high for the wine merchants and shopkeepers to enable them to supply the customers at any thing like the current prices of those days, which were 9 to 10 rupees per dozen quarts. He gradually raised his price from 175 to 250 Rs. per Hogshead, which yields 24 dozens of quarts.

This arbitrary advance, caused by the monopoly of the favorite ale by a single agent, offended the trade here. To guard against similar contingencies for the future, certain influential wine merchants determined upon introducing in this market the manufacture of other marks. Allsopp and Bass were then patronized, who in or about 1882 shut Hodgson out of market, and thus his long established name and celebrity were at an end. He, however, struggled in vain for a long time through other agents to regain his fame conjointly with another brewer named Abbott, changing his firm into "Hodgson and Abbott." Bass and Allsopp then went hand in hand for fully supplying the markets on this side of India. Each appointed an agent in Calcutta for arranging with the trade for its requirements on fair and reasonable terms. Orders were received by them annually from the wine merchants in time for the commencement of new seasons (March and October) for brewing. On arrival of consignments the merchants were supplied rapidly in good order from time to time, till their orders were fully satisfied, and the agents were accustomed to sell surplus quantities at prices of the day.

English bottled beer would seldom or never be sent out to this country in earlier times, and what little came sold for a mere song. The reason of this was that the English brewers of those days were not in a position to consult the climate of this Country for their bottled beers to stand it on arrival.

In 1838-39 only 720 and in 1839-40, 672 dozens were landed here in good order, whilst the quantities in wood which had been imported were 606 Butts and 8,434 Hogsheads in the first, and 391 Butts and 10092 Hogsheads in the last mentioned year, respectively.

Between the above period and 1844-45, large quantities of bottled beer and porter came out to this part of the country. In the year last mentioned 46,187 dozens, 1,244 Butts and 15,192 Hogsheads were imported at Calcutta. In 1870-71 the imports of beer in wood and bottles were as follows : Bass's Butts 30, Hogsheads 536, Barrels 122 Kilderkins 347, and dozens 19635 ; value of this mark alone was Rs 1,59,396. Allsopp's Butts 39, Hogsheads 261, dozens 2,303, value Rs. 44,285, and unknown marks, Kilderkins 830, Barrels 106, Hogsheads 1,291 and dozens 1,92,583, value Rs. 10,41,897. The total value of beers imported in the year 1870-71 was Rs. 12,45,578 against Rs 16,21,881 in 1869-70.

The fall in the value of the imports of beer, say Rs. 3,76,303 accounts for its scarcity in the latter part of 1871.

The quantities of porter imported in 1870-71 were Hogsheads 950 and dozens 23,419. Of this quantity, 3,221 dozens were Guinness's, Barclay's there were none. The total value of porter imported in 1870-71 was Rs. 3,55,129 against 1,47,265 in 1869-70, showing an increased import of the value of 1,07,864 Rs. in 1870-71. All the beers and porters were on account of the trade.

IMPORT of Wines, Spirit and Liqueurs from 1830-31 to 1870-71.

YEARS.	Port.	Sherry.	Madeira Malborough and serial.	Lisbon, Teneriffe and Cape.	Hock.	Claret Burgundy and Hermitage.	Champagne.	All other wines.	Brandy.	Rum.	Whiskey.	Gin.	Liqueurs.	Total.
-31 Sa. Rs.	59,753	2,20,098	72,102	39,113	10,187	2,30,716	23,100	24,389	2,28,318	3,538	9,403	66,158	10,122	9,86,998
-41 Co's. Rs.	91,071	7,18,762	72,413	1,733	28,044	2,12,681	2,18,613	44,494	5,45,748	5,397	8,333	2,77,556	41,732	22,66,578
-51 "	2,34,977	6,04,498	58,922	659	16,982	1,91,113	1,85,140	71,782	6,89,085	5,193	22,153	1,08,354	59,401	22,48,357
-61 "	2,330,026	5,18,892	8,825	966	48,661	3,30,858	2,44,402	2,43,339	7,34,411	4,006	26,969	1,12,107	15,460	25,11,396
-71 "	2,84,265	5,30,637	15,901	...	69,289	5,63,414	4,88,746	1,85,172	17,71,816	37,515	41,553	3,08,512	32,739	43,22,599

BEER AND PORTER.

1830-31.	1840-41.	1850-51.	1860-61.	1870-71.
5,43,908	6,17,155	5,03,332	14,36,039	15,00,707

ABSTRACT.

YEARS.	TOTAL VALUE OF IM- PORTS OF WINES AND SPIRITS.	TOTAL VALUE OF IM- PORTS OF BEERS AND PORTERS.
	Sa. Rs.	Sa. Rs.
1830-31...	9,86,998	5,43,908
	Co's Rs.	Co's Rs.
1840-41..	22,66,576	6,17,155
1850-51...	22,48,357	5,03,332
1860-61...	25,11,396	14,36,039
1870-71...	43,22,599	15,00,707

It will be observed that during the periods under review there have been increased imports of wines, liquors and spirits, and the only decrease which is perceptible is in Madeira imports of Lisbon, Tenerife and Cape wines totally ceased in the last official year. Among the increases the most glaring one is in brandy, that is to say

in 1870-71 it was eight times the value of what was imported in 1830-31, exclusive of duties.

BRANDY.

The European manufacturers and wine merchants ostensibly send out to this side their consignments of wines and spirits to meet the wants of the European population here, and therefore with a view to ascertain how far the drinks were consumed by the Europeans themselves, I have, in the absence yet of a regular census, cast up the numbers of all European gentlemen in the Bengal presidency as contained in the directories for the several decades from 1830 to 1870. Though I cannot vouch for the accuracy of the enumeration I have thus made, I hope, nevertheless, it may not be very far from a correct estimation as shown in the following statement.

COMPARATIVE enumeration of European gentlemen of every class in the Bengal Presidency from 1830 to 1870.

CLASSES.	1830	1840	1850	1860	1870	REMARKS.
Civilians.....	521	450	487	550	590	
Ministers	43	195	220	200	200	
Military Officers.	2,640	3,800	4,004	5,200	3,012	
Residents.....	3,200	2,380	4,020	6,336	15,665	* Of this number 800 were East Indians.
Marine Officers...	176	198	250	700	250	
Shipping say	500	500	500	500	500	
TOTAL.....	7,080	7,523	9,541	18,486	20,217†	

† These enumerations are of course exclusive of the numerous European non-commissioned officers, privates, sailors and ordinary residents, whose names are not inserted in the Directories, and are not supposed to be in a position to afford for indulging in high-priced spirits.

As shown in the statement of wines and spirits the amount value of brandy imported in 1830-31 was Sa. Rs. 2,28,318 and that in 1870-71 Co.'s Rs. 17,71,816. These values, as I understand, are exclusive of duties which added to the amount value of 1830-31 according to the rate noticed above viz. 20 per cent. *ad valorem*, would raise it to Sa. Rs. 2,73,981 or Co.'s Rs. 292,246, and as regards 1870-71 to Co.'s Rs. 23,23,555, by adding the duty @ 3 Rs. per imperial gallon.

Now if this spirit of the value of Co.'s Rs. 2,92,246 should have been used by 7,080 British residents in 1830-31, then at this rate 23,23,555 Co.'s Rs. worth would have to be consumed in 1870-71 by 56,290 residents. But as the number of European residents in 1870 was only 20,217, there remain 36,073 to be found out as new customers to whom the balance of the amount value viz. Co.'s Rs. 14,88,400 should be debited. Who these new customers are it is not difficult to trace. It pains me to say that these are no other than India's own children, whose departed ancestors hated all drinks as abominations. Those who may question the possibility of so enormous an amount as 14,88,400 Rs. being absorbed by the newly baptized devotees of Bacchus, will at once be satisfied, were they to spread the amount among their numbers. The result will in such case be 41 Rs. a head per annum.

This sum is scarcely enough for meeting the demands of *sweet Saturdays* alone all round the year, when in discussing bottles they defy Temperance Societies and laugh at their members.

The mention of Temperance Societies calls to my mind certain remarks which at a meeting some time ago fell from a well known native gentleman renowned for his philanthropy, wherein he insinuated that our Government winked

at the growing intemperance for the sake of gain. It is but justice to say that the Government is as conscious of its evil tendency as any sober people in its dominion, but the Government is placed in a position which is similar to "burning a candle at both ends," as our late Lieutenant Governor, Sir Cecil Beadon would say.

The laws above quoted will have shown what effects the low and high rates of duties on spirits imported by sea have produced. Neither the one nor the other would check the imports, the entire prohibition of which would be as impolitic as it was opposed to common sense. There is no civilized country the laws of which do not allow drinking, though disposed to check the evil under the most stringent provisions. There is no Government which does not live upon the vice and virtue of its people. Exercise of physical force cannot avail. Throwing overboard casks of wines and spirits, shutting up the liquor shops, and demolishing distilleries on the spot would answer no better than tying up the hands and gagging the mouths of those addicted to the vice. Where there is a will there is a way—is a saying the truth of which cannot be better illustrated than in the case of the love of drink.

The only way by which it could be checked is by improving the minds of the people. It cannot be gainsaid that the Government has done more than we could expect in this respect. It has introduced us to Shakspeare, Milton and Addison, and if we have picked up an acquaintance with Messrs. Exshaw, White and Old Tom, we have done so by self-introduction at the expense of our religion, health and hard-earned money.

OPIMUM MONOPOLY.

From the earliest days of the late East India Company, this question has been a subject of serious comments both

in this country and in England, as well on moral as on political grounds. Exigencies of the State, however, have ever since allowed it to remain in abeyance. In fact the Government has not hitherto been in a position to forego the so far sure and extensive Revenue which it yields, without endangering its general resources, or hazarding an unpopularity among its subjects of diverse colors and creeds, by attempting to find out substitutes in its stead.

Nothing would be more futile on my part than to attempt at discussing, one way or the other, all the important points which this grand question embraces. I shall therefore content myself with submitting here only the results of my humble thoughts and experience in this matter.

As it appears to me this monopoly comprises two questions.

1st. The propriety or otherwise of abolishing it.

2nd. The future growth of poppy under excise rules and regulations, in case the monopoly be dispensed with.

It strikes me that much may be said on both sides, but the balance, I think, is in favor of the retention of the present system of its cultivation.

Irrespective of fiscal considerations, the continuance of the cultivation of opium in the hands of the Government, is replete with advantages which cannot be enjoyed either by the public or the Government, under any other arrangement however preferable it may be deemed.

As a necessary evil our country must have opium of her own either for export or local consumption in the same way as any civilized land in the world as regards the other narcotics. It may be with some reason urged that in such case the direct control and management of its growth should not be monopolized by the Government for its own exclusive benefit, unlike any other civilized Government.

But there are more cogent reasons which are in favor of this monopoly against the hackneyed argument I have referred to, whether in a moral or political point of view.

In or about the year 1850 a well-known staunch friend of temperance vigorously protested in England against this Indian monopoly as tending to the demoralization of the subjects of the Celestial Empire. In order to ascertain how far the produce of the Bengal Presidency alone contributed to this mischief, enquiries were instituted, I believe at the instance of this Government, through the agencies of the foreign merchants in China, and the Missionaries accustomed to penetrate into the interior. Their reports were to the effect that opium was cultivated in various parts to a large amount, with the possibility of an extension to any length; and that the quality of the native opium being inferior to that of Bengal, it was in its use invariably mixed with ours and other foreign drugs, Malwa and Turkey. It was also ascertained at the time from other sources, that if the Indian Government discontinued its monopoly, or interdicted its export through its own territories, the Portuguese Settlements of Diu and Damaun would certainly take an active part in this trade. These facts went a great way to prove that either the withdrawal of the Government monopoly, or even the prohibition of the export of opium from India would not at all avail in attaining the desired object of reclaiming a people already too far gone in indulging in a vice which has from a long established practice been habitual with them, as much as drinking wines and liquors among the more polished nations of the other parts of the world. If, however, our Government from a more rigid observance of the principles of morality, or upon political grounds, were to abandon the monopoly, and throw up the opium cultivation to the public, that evil out-

of-door so much repudiated by the more scrupulous, would be disseminated at home, at the sacrifice of an immense Revenue, and of the well-being of the country itself. It is well known that at the present moment the taste for opium eating and smoking is prevailing throughout Bengal and the North Western provinces, and if the vice has not yet gone up to that tremendous height which would be as alarming with us as it is now with the sober of China, it is solely owing to the stringency of the *Abkaree* rules and the high price set upon the *Abkaree* opium, the aggregate proceeds of sale of which in 1870-71 amounted to Rs. 30,41,703. In spite of these precautions the trade in illicit opium is surreptitiously carried on to some extent, and the watchful efforts of the preventive officers are not unfrequently baffled. What then, I ask, would be the consequence if an enormous production of this expensive narcotic was entrusted to private individuals of every race spread over the vast continent of British India? As a general rule in delegating the power of growing opium under an excise law, no distinction could consistently be made as to the caste or position of the License-holder; and therefore it is more than probable that the sale of contraband opium would be more tempting with many than legitimate sale, as some time is the case even with salt at present. When there are such temptations with regard to an article which is a condiment of food, what must be the consequence of a universal free growth of an intoxicating drug, the deprivation of which has almost a killing effect upon those who have taken to the fell habit of using it? It might be urged by those who warmly advocate excise opium, that it would be disparaging to the Government if it could not suppress such abuses in the event of the cultivation being transferred to private enterprise. But it cannot be denied that in the case of a narcotic, no vigilance however

rigorously pursued, could prevent the smuggling of it when a high rate of duty tempts it. Even England, whose laws and principles are the models for our country, cannot, as I am informed, check the intrigue and dexterity with which an illegal trade is carried on there in foreign spirits, the duties* on which are of a prohibitory character, as compared with those current on this side.

From an indiscriminate cultivation of poppy a greater smuggling will doubtless result, and all manner of fraud and adulteration will find its way into the manufacture of the drug, whether it be intended for foreign or authorized local consumption; and thus that popularity which our Bengal opium has gained with the Chinese from its proved genuineness over a century will undoubtedly be at stake.

There is no description of opium brought to sale to Chinese markets of which every chest is not tested before delivery and allowances are not exacted for any difference from the standard quality of each, with reference to which every bargain is struck. But such is not the case with Bengal Opium. The first batch of the first sale's opium of every year is scientifically analyzed on arrival there and after its standard quality has been once ascertained, no question on that score is raised as regards subsequent arrivals from the provision of the year to which they appertain.

Such is the high opinion entertained by the Chinese dealers of our opium. The credit for this unexceptionableness of quality is certainly due to the constant care and attention bestowed upon its manufacture by the Government, the Board of Revenue and their subordinate officers of practical experience specially entrusted with that duty.

* Brandy and Geneva, the gallon—10s. 5d. (20s. 10d. the Dozen quarts)
Ham's Customs Tariff 1868-69,

Whether the same high opinion of the Chinese for it would remain unchanged when it would fall into multifarious hands and would be exported under different trade marks, is a question, which may well suggest grave doubts. The probability is that Bengal opium which is regarded in China as of the first class, not so much for the superiority of its quality, as for its acknowledged purity, will suffer and lose its present position in the Chinese market. A greater proof cannot be adduced in support of such an assumption than the deterioration of the qualities of Bengal cotton after the cessation of the E. I. Company's trade with China, as I noticed on the former occasion.

Then comes a question of vital importance to those who covet the golden fruit now enjoyed by the Government; I mean that profitable return from opium which is unknown in any other agricultural pursuit in India or elsewhere. It should be borne in mind that the margin now observed between the prime cost and the sale price of the Government opium, is not treated as a profit, but as an undefined duty levied according to the temper of the market. This principle regulates the duty imposed at Bombay on Malwa opium. It is well known that the Government does not court a high price, and would always prefer a smaller advance upon its cost for the sake of the permanency of this branch of our trade. In the case of excise opium duties will have to be placed upon it, both as regards exports, and local use; and what these duties will be may be well guessed. All that can be predicted is that they will not fall lightly upon the growers. These added to the *bona fide* cost of the cultivation and manufacture of the opium, which necessarily will be heavier from an animated competition, can at all events hardly conduce to remunerate the planter or manufacturer in the end to any

such extent as he might be led to expect, if remunerative be the result at all.

In dealing with this question the supply of the sinews of war to carry out an undertaking of so gigantic a character, deserves the serious consideration of the would-be speculator, Supposing we take the minimum quantity of the growth of excise opium at 50,000 chests, and the cost at Rs. 375 each, a capital of Rs. 1,87,50,000 or £18,75,000 will have to be applied towards the cultivation and manufacture alone, and in providing for the construction or purchase of factories and other incidental charges, a further sum of Rs. 25,00,000 or £2,50,000 at the least will have to be added to the aforesaid sum, netting together Rs. 2,00,00,000 or £20,00,000. Whether India, I should rather say the Bengal Presidency alone, has at her command an available surplus fund to spare for meeting requirements to that extent, I will leave to those better acquainted with the financial position of this country than myself, to judge. Were we to draw an inference from the nature of accommodations afforded at present to planters, traders and others for the purposes of local produce or commerce, we would hardly feel sanguine in reckoning upon any such extensive assistance as would be needed for the prosecution of a new and hazardous speculation of the kind under discussion.

In the event of my anticipation being correct, the supporters of the cause of excise opium may recommend an appeal to the capitalists in England for a succour denied by our own. Were we to recall to our mind the causes of universal defection given of late both by Eastern and Western India to the millionaires in the United Kingdom, faint must be the hope for any such help. The havoc created by the short-lived Land Reclamation and Financial Companies on both sides, and the consequent pestilence

which carried off thousands of the great and small in this clime, as well as in England, are events which will not be wiped off from memory for generations to come. The no ordinary Capital of £2,500,000 of the late healthy old Bank of Bombay, and the no less a sum thrown on this side into the Port Canning and the Tea Estates were swept away in a manner which was astounding to the whole world, facts which will ever be vividly retained in the recollection of the sufferers.

Any application therefore to the English capitalists for liberal accommodations for carrying out a project of a far graver character than any of its predecessors, will in all probability have the chance of being treated with indifference if not ridicule.

At all events if the privilege of growing excise opium be accorded in supersession of the monopoly, it will be the work of a precious long time before the planters would be in a position to bring into the market any thing like that annual provision now brought to the hammer by the Government at stated periods. That in such a case there will in the meantime be a material deficiency in the receipts of the Government, none can deny, and what the effect of such deficiency will be, may be better conceived than I can anticipate here. Suffice it to say, that in order to meet both ends, further taxation in some shape or other will have to be resorted to by the Government, and then frightful must be the hue and cry of the people already complaining of being overburdened with taxes.

I shall endeavour to show in figures the practical effect which the opium revenue now has upon the financial and commercial interests of this country generally.

In the table of the proportions of external commerce with every country and state published in the commercial

annual for 1870-71, it will be seen that the total import of all descriptions of goods into Bengal in 1869-70 was of the value of Rs. 21,12,15,165 against 20,15,06,576 in 1870-71, and the export was of Rs. 23,58,84,259 against 26,70,68,967 in the two years respectively. The value of the export of opium alone to Singapore and China in 1869-70 was Rs. 5,41,24,616 for 45,093 chests, and in 1870-71 Rs. 5,25,06,474 for 46,464 chests. Thus the balance of trade in our favor in 1869-70 was Rs. 2,41,69,094 and in 1870-71 Rs. 6,55, 62,391. It is therefore clear that if we were to deduct from the total amount of exports the value of the opium exported to Singapore and China in 1869-70, there would be a balance against us of Rs. 2,99,55,522, and in 1870-71 a balance in our favor of Rs. 1,30,55,917 only.

The net revenue derived in 1870-71 by the Indian Government from Bengal opium alone was about Rs. 3,63,00,000 or £3,63,0,000. This sum was met by a foreign country not in kind but in coin or bullion for opium purposes alone. That Country after a knowledge of the abolition of the Government monopoly will assuredly endeavour to provide her requirements from local productions, however inferior their qualities may be, or in such case Turkey and Persia, as well as Malwa, would feel disposed to augment their produce largely.

I may remark here that such an eventuality as this would at once frustrate the long cherished views of the princely merchants of Liverpool and Glasgow, that the discontinuance of the cultivation of opium in the Bengal Presidency would lead to an enlarged consumption of their piece goods in China from the savings made there by the forced abstinence of her people from further consumption of the exhilarating drug from Bengal.

It is much to be feared that any derangement caused in the opium revenue by any change, would tend to embarrass our general trade, the prospects of which are already far from being encouraging, and in such a case the balance of our external trade will continue to increase against us.

That continuous balances of trade against any country forebode the fall of its commerce, is a truism well known to all; and hence I fervently hope that for the sake of our country's good, this monopoly may never be disturbed.

INDIAN TEA.

There were many bold but headlong speculations embarked upon by enterprising projectors, which ultimately proved not a little harassing to them and others concerned; but it was sometimes the case that diligent care and perseverance brought on in the end a fruitful result in adventures, the eventual success in which was once despaired of. Our Indian tea plantations bear a similar character. On the former occasion I ventured to express my sanguine expectation as to favourable prospects being in store for this highly valuable produce, though hitherto disastrous in the extreme has been the outturn with regard to many of the concerns.

Though not personally interested in the cause of tea cultivation, I have since more deeply gone into this important subject, and the result of my further researches strengthens the belief that the day is not very far distant when Indian tea may form one of the chief sources of India's wealth. If India eventually happens to be deprived of her opium revenue, as is now apprehended by many, we may reasonably hope for keeping up the balance of our external trade by an extended export of our teas to foreign ports, rather than by any other ways and means. All that is now wanted is an ample supply of labor and a good and

able management. The one can only be secured by the settlement of emigrants of both sexes in the tea tracts, and the other by the selection of men of tried experience and honesty of purpose, as also by a direct supervision of the proprietors themselves. When I say so, I beg to be distinctly understood that nothing is more foreign to my thoughts than to impugn the talents and characters of those in charge of the gardens at the present moment, or of their predecessors. I mean to notice only the principle upon which the interest of the proprietors of the plantations could reasonably be secured.

In a recent issue of Mr. A. G. Roussac's "Calcutta money market" I find that there are 33 working Tea Companies which hold 41 estates, viz., 10 in Assam, 14 in Cachar, 1 in Chittagong, 11 in Darjeeling, 1 in Dehra Doon, 1 in Hazaribagh, 1 in Kumaon, and 2 in Sylhet.

Of these 33 companies, the subscribed capital of 28 is Rs. 1,82,70,000 of which Rs. 1,40,72,800 are paid up, and that of the remaining 6 is £13,86,000, £9,41,330 of which are paid up. The total subscribed capital of the 33 companies in Rs. is 3,21,30,000 of which Rs. 2,34,86,100 are paid up: the balance yet remaining to meet the full amount of the subscribed capital is Rs. 86,43,900. As a criterion for judging of the respective position of these companies, I see that there are 12 Companies whose shares are selling in the market at premiums, those of one at par, of 17 under discount, and the values of the shares of 3 are nominal.

As may be inferred from the current market values of shares of the Tea Estates shown above, there are only a few, comparatively speaking, which are in a proper working order, and the others partially so. But with all the disad-

vantages which stand in the way of more encouraging results, the production in the aggregate is steadily on the rise.

The statistics I had before me did not enable me to ascertain the total produce of all the companies in any one of the late seasons simultaneously. In order therefore to form an approximate estimate of it, I give below the exports by sea of the last two official years to all ports with custom house valuations set opposite those of each year. In the absence of any means for finding the quantities consumed in this part of India, I have, as the only alternative left to me for that purpose, noted down separately the imports at Calcutta, during the corresponding periods, of teas from China and other eastern ports; presuming that the falling off in these imports will in some measure account for proportionate increase in the consumption on this side of the Indian substitute, which might be added to the bulk of the produce exported by sea in each year; and thus an idea may be formed as near to the mark as possible of the annual produce of Indian Teas.

Export of Indian tea by sea in 1869-70.

1,23,57,237½ value Rs. 1,01,69,786.

In 1870-71.

1,27,66,915½ value Rs. 1,08,10,602.

Import at Calcutta of tea by sea from China, Singapore, Penang and Pegu, in 1869-70.

4,53,572½ value Rs. 3,20,234.

In 1870-71.

3,57,684½ value Rs. 2,40,946—showing a falling off in value of Rs. 79,288.

I need scarcely mention that the tea trade takes a prominent part in the general commerce of Great Britain. Her

consumption of all sorts of tea during the last two years, 1869 and 1870, was as follows.

Deliveries of teas in London.

	1869.	lbs.	1870.	lbs.
China Black.....	124,077,224		124,317,301	
„ Green	11,404,070		10,720,134	
	<hr/>		<hr/>	
Total.....	135,481,294		135,037,435	
Assam Black.....	10,519,520		13,472,800	
	<hr/>		<hr/>	
Grand Total.....	146,000,814		148,510,235	

In 1870 the prices for China Blacks varied from 11*d.* to 2*s.* 4*d.*, for Flowery Pekoe 1*s.* 10*d.* to 4*s.* 6*d.*, and for similar qualities of Indian from 1*s.* 2*d.* to 3*s.* 4*d.* and for Flowery Pekoe from 3*s.* to 6*d.* per lb.

From the respective values of teas of the two countries as shown above, it will appear at once how far ours is preferred to China. In an English price current for September last it was remarked that, “Indian teas, fine and “strong, bring extreme prices, but common and weak sorts “are not wanted.”

It will also appear that the aggregate value of this trade in England is nearly Rs. 15 crores, or 15 million pounds sterling, taking the price at 2*s.* per lb on an average, besides the English duty. In the event of the imports in England from China continuing unabated, and at the same time our exports to Great Britain being eventually extended largely, British legislature might in all probability make room enough for the latter by reduction of duty, which is 6*d.* per lb generally for all qualities. The question of reduction has already been in agitation.

Ever since the people of Europe learned to drink tea, they were supplied by China alone, and it is only recently that

India has begun to participate, however insignificantly, in a gigantic trade heretofore enjoyed exclusively by the Chinese.

India has a preferential right to claim a greater share of England's patronage in this trade, than any other producing country. The reasons are that India being a dependency of Great Britain, she may rely on us for supplying her uninterruptedly with a beverage used by her people as a necessary of life, and that it is the opinion of the best English judges that the run of the qualities of China black teas is inferior to those of ours, which are preferred, and therefore command higher prices. But it is to be borne in mind that the inferiority in the qualities of those descriptions of China teas which bear a greater proportion to the total consumption in Europe, is not to be ascribed to the incapability of China to produce better qualities, but it is owing to the carelessness and adulterating propensity on the part of the Chinese planters, proceeding from a confidence of China having been once the only country to which the world had hitherto looked for her abundant supplies. Hence they felt sanguine of their customers abroad consuming their teas blind-folded. If our Indian planters be alive to their own interests, they ought always to be on the alert for preserving that popularity which they have earned in the beginning of their career, especially when they have so formidable a rival to compete with.

If India eventually be so fortunate as to be in a position to extend her produce on a more liberal scale, she may safely calculate on finding not only markets in every country where teas are consumed, but also on sure profitable returns.

Our tea lands are extensive and fertile, and, I believe, their products are less open to the inclemencies of weather, than any other crop in this country; and the process of manipulation of tea is simpler than of any other like valu-

able production of India. It would therefore be no exaggeration were I to remark that under the soil of the tea plantations is buried an endless wealth not susceptible of being exhausted like the gold digging of Australia and California, where the emboweled treasures, once unearthed, can never be turned up again. Aurungzebe calls the Province of Bengal *جنت البلاد* *Jennetulbalad* (the paradise of regions.)* Much remains therefore to be developed in the tea fields yet, and all that is needed, as I have already observed, are unremitted industry, zeal, and energy among all those who may solemnly take an interest in the cause of this most lucrative agricultural occupation. Why then should not the worthies of our present native generation, whose general qualifications befit them for exalted posts and positions, turn their attention also to this no less honorable calling? They should not only aspire to the bar and the bench, but know that it is no meanness to turn likewise to the wielding of the plough. The head of the distributor of justice may be wreathed with laurels of honor, but that head does not lie easy on the pillow; and the weight of responsibility hangs not lightly on his conscience. With pleaders and solicitors ample food for feeding them with, may not always be available. The market is now over-stocked with first-rate native talents, and to which there are accessions daily. The credit for this is due to the Government, and it would be a folly to trust to it alone for their entire disposal. It is time for the possessors of those talents to find out new openings for them. Among the members of our ruling nation, we see innumerable specimens of superior literary and scientific qualifications, condescending to employments of even a mechanical character for the sake of earning an honest and honorable livelihood,

* See Sir W. Jones' Persian Grammar p. 82, edition of 1771.

and that they have reaped peculiar benefits which are not within the reach of the illiterate. Our enlightened young friends should not hesitate to follow their example.

Though the road to fortune of a trader and an agriculturist may be rugged and thorny, yet stimulated by hope they wade through difficulties till they attain their ends, and when fortune once smiles upon them, their worldly position, coupled with the blessings of independence, is envied by even officials of eminent position.

Let our bright geniuses at their own threshold work with their young arms under the guidance of old heads, as Dr. Johnson would have it, and they will not only serve themselves, but their country and posterity.

“There's room enough, and each may bring his friends.”

SELECTIONS
FROM THE
BETHUNE SOCIETY'S PAPERS,

EDITED BY THE
PRESIDENT AND THE COMMITTEE OF PAPERS.

NUMBER IV.

1.—ADDRESS OF THE PRESIDENT JAMES HUME, ESQ.
ON HIS ELECTION.

2.—THE MORAL SPIRIT OF EARLY GREEK POETRY.
BY GEORGE SMITH, ESQ.

3.—LECTURE ON CHEMISTRY APPLIED TO
AGRICULTURE,
BY GEORGE E. EVANS, B. A.

(*) *Employment of Women*
(*) *"The Claims of the Poor" - a lecture*
by Kailash chander Bose at the
"Uttarparaiah Hitakari Sabha" in 1866

CALCUTTA:

PRINTED BY D'ROZARIO AND CO. TANK-SQUARE.

1857.

ADDRESS OF THE PRESIDENT, JAMES HUME, Esq.

ON TAKING THE CHAIR AFTER HIS ELECTION ON THE

12TH FEBRUARY, 1857.

GENTLEMEN,

I have been officially informed that at your last Meeting I was elected President of this Society, and in taking the chair, the first thing I have to do is to thank you. In consenting that my name should be submitted, I yielded to the opinion and wishes of some of the oldest and best friends of the Society; they entertained much more definite ideas as to my being serviceable than I could myself, and I join you rather with the intention of doing my best towards the common cause, than with any hope of being able to justify their flattering expectations. I have rarely, perhaps I might say never, joined any Society requiring the active exertions of its members without intending to work for it, and doing so; because better than any subscription a man pays, and more valuable than any actual service he may render, is the example he sets to others. In no place is it more important that this should be remembered than in Calcutta, where, I am sorry to say, I do not think Europeans sufficiently consider the obligations they are under, by virtue of their position, to work for the moral and intellectual advancement of the people. Many will give their money in the direct form of rupees when called upon to do so, but few will give it in the form of time: our public servants, covenanted and uncovenanted, are content to take their salary for their work—and sometimes do as little as possible for it—while lawyers, merchants, and tradesmen appear to have no time for any thing that does not result in cash. There are no doubt honorable exceptions, but this is the rule. This Society has happily not being wanting in able and disinterested men to fill its highest offices, but how very few are its European working members!—and yet I cannot conceive one more calculated to work great good. Its object is to bring intelligent men of the two races together on common grounds for the cultivation of thought and mutual improvement, to provide educated young natives with the means of keeping up their interest in knowledge, to increase their acquaintance with literature, science, and the fine arts, and to prosecute the healthy practice of free and public discussion. How many might aid these objects; how very few have made any effort to do so! The aptitude of the native mind to receive instruction is gene-

rally admitted; and it is as generally, and quite as justly, complained that almost before the boy becomes a young man, either his aptitude fails him or his ambition to learn is at an end. His aptitude does not fail him, but his energy does; and if I were asked why, I should say, it is largely owing to this,—that when he has learned enough for all that he is likely to get as a public servant, he has no encouragement for further exertion. The times have changed much for the better in this respect of late years, and they are still mending, and the proposed University will be invaluable as a stimulant, since the youth will see within his reach, when his school days are over, honours that he may be proud of as a man.

A second cause of that early lassitude of which we complain is an entire, or almost entire, absence of that direct intellectual intercourse with Europeans which a Society like this is so well able to supply; and a third is that want of liberal social intercourse which could not fail to act as a strong stimulant to sustained exertions: if we desire to Europeanize the rising generation we should be careful to let Natives see as much of Europeans as possible; instead of which the practice seems to be to let them see as little of them as possible: books are not the sole means of improvement, though I confess the great majority of people here appear to think so.

The lamented gentleman in whose honor this Society was founded was not among the number: there was no educated native in the country, of good character, to whom it was not free to be his friend: one hundred men with the liberal mind of Mr. Bethune, and with his disinterestedness, sincerity and zeal, would do more in ten years, working together, to advance the native community in some of the greatest essentials of progress, than as many lacks of rupees simply laid out in Education,—as the term is misunderstood, or at any rate narrowed in interpretation. This is not the first time that I have had the opportunity of avowing within these walls my admiration of the man for what he did, and what he strove to do, and with a munificence never exceeded; but I cannot deny myself the gratification of repeating it on this occasion, when I am brought in direct and close connection with the Society. I say the gratification, but with my views it is a duty, for I have spoken of the importance of example, and it is for this I regarded Mr. Bethune and venerate his memory. His open purse was a great and present aid, but his example was what money could not purchase. If fewer of his countrymen have followed

in his steps than could have been wished, the directions they took have not been wholly missed; this Society itself is a fruit of his deeds, and while it seeks to carry out the objects to which he was devoted, it will serve to perpetuate his name. For myself I would rather have such a testimonial than any that marble, or bronze, or canvass could supply.

And now permit me to address a few words to the younger members of the Society, and those younger members of the native community who are in the habit of attending these meetings, on a point of the greatest importance. Let all your efforts have a practical tendency: be not led away in your discourses, written or verbal, by a mere desire to say or write something. I have spoken of the aptitude of young natives to receive instruction; but it will prove a fatal facility if it hurries you into the belief that anything worth hearing or reading can be produced without thought. To endeavor to reproduce the thoughts of others is an admirable practice, as testing the attention with which you have read or listened, and it necessarily strengthens the memory; but if, as writers or talkers, you rely simply on a good recollection of the riches of other men's minds, it will more than suggest the poverty of your own. Remember this,—that one original thought is worth a thousand quotations, and that one definite conclusion, though faulty, being arrived at by illogical reasoning, is preferable to a volume of vague generalities suggesting not the slightest exercise of the mind.

I have hinted, slightly enough, at the better times for intellectual desert in which the rising generation is living. It is a topic which might be enlarged upon, without violating the spirit of the rule which excludes the consideration of political matters; but this evening is pre-engaged, and I must forbear. At the same time I am anxious to read to you a passage I fell in with the other day, quite accidentally, in a fragment of the *Times* newspaper. It forms part of an address, by whom I know not, at some Mechanics' Institution in Lancashire, and must have been delivered in October 1855. The speaker said:—

“It is not at this time nor in this place that I would touch on matters of national concern. Zeal will be impetuous in a good cause, and talent loves to display itself in controversy; but true wisdom is peaceable; and we meet here to seek occasion for agreement not difference. Therefore it is that subjects which relate to the Government and administration of this realm, are both by rule and by ~~time~~ which is better than rule, banished from these

our meetings. But there is one principle of administration, a principle which in theory and in the abstract, indeed, has always been allowed, though only of late attempted to be embodied in any legislative act, so closely connected with the object of institutions like these, that to allude to its application is natural and a part of my duty. I mean the principle laid down by the first Napoleon—than whom no man applied it more largely and to whose marvellous success it contributed in no small degree, that of an open career offered to merit and talent. I mean that principle which has equality and justice for its basis, not an impossible and a tyrannical equality of social *status*, as between man and man, but equal chances given, equal opportunities afforded, equal favor shown to all whose ambition or patriotism aspires to distinction in the service of England. I mean that principle which admonishes the wealthy and the powerful, that in the career of open intellectual competition neither riches nor influence nor connection will avail them any thing, and which says to the poor and friendless candidate,—friendless, but conscious of abilities which demand only scope for action, ‘rely neither on the patronage of the powerful, nor yet on that popular favor which is so often ill bestowed, but trust to the keenness of your own intellect, to the strength of your own will, to the perseverance, which, shrinking not from long and monotonous labor, endures to the end; and be sure that those qualities, their existence in you once proved under a system formed expressly to develop and call them forth—will be recognised and amply rewarded.’”

Do not think that I desire to present you with too flattering a picture of your prospects. In the keen encounter of wits and the great struggle for advancement in life, there must be many disappointments. I have read this passage simply because it inculcates the enhanced value, in the improved spirit of the world, of industry and perseverance, and that fitness for public employment which, with ordinary intelligence, they rarely fail to produce. What is true in England in this respect is every day, in my opinion, becoming more true than it has been in India, and I earnestly hope that many of you may live and so prosper as to verify what I have said. This Society with the cordial co-operation of those in a position to help it, is capable of being made an important organ of that instruction well calculated to serve you in after life; and as such I commend it alike to the countenance and support of your countrymen and my own.

The Moral Spirit of Early Greek Poetry.

By GEORGE SMITH, Esq.

No apology can be necessary for reading a paper on the Moral Spirit of Early Greek Poetry to an audience of intelligent and educated Hindoos. That intelligence must be very limited in extent, and the education very imperfect, which have left a man ignorant of the nations of western antiquity, of their character, their literature, the chief personages who figure in their history, and the influence that they have had on that nation which has introduced into India the learning and sciences that they pursued, purified, extended and ennobled by recent discoveries, and still higher forms of civilization. However Scholars may differ as to the degree of influence exercised by Greece on the thoughts and deeds of those who succeeded her, however practical educators, in those days of utilitarianism, may dispute as to the comparative value of her language and literature as a means of intellectual discipline and of preparation for the battle of life, all are agreed on this, that in themselves, the language, literature and history of that glorious land are unequalled as the unaided efforts of human genius. Placed in circumstances where, beyond the physical aspects of their country, there was little to develop the innate power of their soul, having nothing but the traditions of Egypt and Phœnicia to guide them in their search after the true, the beautiful and the good, ignorant of the systems of faith and philosophy that had been elaborated by the subtle brain of India, with none to teach and none to assist, they set themselves to the task, and succeeded in rearing the grandest intellectual structure that the world has yet seen.

Strong also in practical common sense, even as the Saxon is, given to the pleasures of the chase, to the stern pursuits of war, and to the adventures of the bold colonist, the Greek combined with all this a love for the ideal and the beautiful, that have made his creations the model and study of the world. Lacking however in the ability to unite permanently with each other, and perhaps also in the strength of muscle that denotes high physical power, their Empire passed

away, for they found in the Romans a very different order of men from those whom they had encountered on the plains of Marathon. But even in defeat the Greeks were triumphant. Politically enslaved they revelled in the Empire of intellect, so that their power was acknowledged even by the proud Romans, and their conquerors performed a secondary part in the history of the world. They propagated and rendered permanent that civilisation, to the power of which the Goth, the Vandal and the Hun yielded, and which wrought in the silent laboratory of the middle ages, till, combined with another and grander element; it gave birth to that modern progress, of the triumphs of which we are so justly proud.

But to the mind of the Hindoo, who with national enthusiasm loves to study the literature of his own land, the subject of Greece, and especially of its Heroic Poetry, must present itself in a most familiar and attractive dress. There is not a scene of the ever-shifting epos that he is not, in outline, familiar with, not a passion of the intense lyric that he has not experienced. He too has heroic poetry, grand and gigantic in its extent, and far from despicable in its character. To him Valmiki is Homer and Rama is Achilles, Lanka is his Troy, the Ramayan his Iliad, the Mahabharat but a second Odyssey. In the brooding sages of the Vedantic age he finds his Hesiod, in the later literature of the Court of Vikramaditya his Aeschylus and Sophocles.

While it would be far from correct to say that a strict and detailed parallel between early Greek and Hindoo Poetry may be carried out, yet in their great leading outlines both seem to have many analogies. As the Iliad stands out from the rest of Greek literature, like some gigantic bas-relief, so does the Ramayan to even a greater extent in that of India. Immeasurably superior to the Mahabharat in point of poetic power and conception, and also of artistic beauty of execution, it is also anterior to it in point of time, relating the history of the seventh incarnation of Vishnu, while the latter has Krishna, the eighth, as its hero. The latter loses in intensity what it has in length, and is to be remembered by the Scholar not as a whole but for such beautiful episodes as the Bhagavat Geet. Both Homer and Valmiki appear before us more as gods come down from the misty heights of Olympus or Meru than men, with the details of whose every-day life we may be familiar. Of their

lives, so far as outward circumstances are concerned, we know in the case of the Hindoo poet little, of the Greek nothing. The life of the latter by Herodotus of Halicarnassus was long since proved to be a forgery, and even Aristotle, with all his restless, scientific and historical activity, could add but a few stones to the almost invisible cairn that marks the resting-place of the blind old man. We look upon both as the representative poets of the early Aryan races. Sprung from the same original seats in the table lands and smiling valleys of Iran, the races separate—the Pelasgi to the north, the Indi to the south. Alike in the essentials of their character, in the instincts of their soul, and in the peculiarities of their early beliefs, the various circumstances of their different positions stamped in the one a love of the ever-changing and all-harmonious beautiful, in the other a sense of the eternal and ever-resting vast. This difference, important and marked in later times, had then little affected these poets, and we find them in the olden days of 1,000 or 900 B. C. unconnected with each other, pouring forth strains that in all their essential characteristics resemble each other.

And yet how different were the ancestral traditions amid which their infancy had been nursed, how different the scenes on which their poetic eyes had gazed. In the mind of the one, as he stood on that hill of Banda that still bears his name, and looked over the vast Gangetic valley and the fertile Doab, or as he walked through the streets of Ayodha, or gazed on the blue Himalayas, the vast and the terrible predominated. The other, moving amid the populous cities of Asia, or standing on the cliffs of Ida and surveying the wood below, with its yellow Xanthus winding down to the sea, or sailing amid the Cyclades and like his own Demodocus stringing his harp in the halls of an Alcinous, had his soul impressed by life in all its forms—its glory, its beauty, its joy.

Choosing a hero of high moral worth and great martial prowess, both, with due regard to the laws of the Epos, which they after all created and constituted, trace him through all his great deeds, associate with him in artistic, but by no means slavish, unity actors who take their proper part in the plot, cause all to move in ever new harmony, represent vice as defeated and virtue as triumphant, until having passed through many fiery trials it meets with a death of glory, or is crowned with an old age of honour.

When we contrast the Moral Spirit that pervades the great Hindoo Epic, and the moral spectacle that Rama the gentle and the brave presents, we find it difficult to understand how such could exist or be imagined by the brain of a Hindoo poet. Certainly it is a sad satire on the later literature of the country, which is often unreadable from its moral impurity, even in the best Sanskrit, or that which forms the staple of the reading of the lower classes now, in which we see obscenity hallowed and sanctioned by superstition. In the earlier myths of Rama but little of this, however, occurs. As in Achilles, we see both the virtues of the head and heart manifested in him. In both, while there are gigantic weaknesses, we have evidence of the power of a moral sense, which in the literature and daily social life of these later times seems to have been obliterated. There is a grand moral shrinking from vice and defilement, a manly resolution to do, to dare, to sacrifice all things rather than lose the consciousness of uprightness. But still this is true of the Hindoo Poem only generally. In the cases of even both, a certain melancholy mingles with our admiration, and we feel inclined to say, is this all? could unaided man effect no more? did the ideal of virtue reach to no higher pitch in the national mind of the two races that are at the head of Europe and Asia respectively? Turn to the philosophers, you answer, and see in them a system of morality, wonderful for the age in which it was produced, and the admiration of all subsequent thinkers. The age of the philosophers was, and ever is in all countries, practically less moral than that of the early poets. There is at least so much truth at the basis of Rousseau's dreams. Even the greatest of these philosophers, Plato, confessed as the result of all his speculations that that virtue, whose characters he had depicted and whose beauty he had lingered over in his works, as none did before or since, must descend from Heaven itself, if ever the world were to be made better or wiser. 'Virtue, then, morality is divine in its standard, its contents, its motives, the assistance to carry it out and its final rewards, and in any remarks that we may make on the moral spirit of early Greek Poetry, we trust that this will be kept in mind.

There is a progressive development in the poetic power of every nation, which meets us at the very outset of the history of literature. Mr. Dallas has well illustrated the nature and character of this development in his '*Poetics*,' work which we would recommend to

every student of Literature as the best attempt, since Aristotle, to penetrate that veil behind which the muse has enshrined herself in unapproachable mystery, and to place Criticism and Poetry in the category of the cognizable and the scientific. We have in the first stage the rude chronicler who, desirous to hand down to posterity the deeds of the olden time, or to celebrate the praises of some great chieftain, gives us the *Epic Poem*. It may be but a rude ballad, or but a prosaic chronicle in irregular rhythm and full of native fire. But still it is a poem, fit to be recited by the wandering minstrel or sung in the halls of the great or in the tents of heroes by a blind old bard. We have thus first of all epic poetry. But people feel before they think, and before they learn to record events. Still it is more difficult artistically to express feeling than to hand down the annals of the past, and hence the *Lyric*, though first in origin, is second in expression. In it the heart of a nation is seen to throb, its great breast to swell, and every voice responds to the lyric lay that expresses more beautifully, correctly and fully than each could have done, his own feelings, hopes, desires, lovings and hatings. It takes some time till the *Drama* can come forth in all its power. Gradually it is elaborated, and it is only when the nation enters itself on the world of action, when all classes of the community play their part, that character is developed, and man rubs against and influences man, it is only when in fact the world itself becomes a theatre that the drama flourishes. 'Twas the Persian invasion and the previous legislation of Solon that gave us Aeschylus, Sophocles, Euripides. 'Twas the reign of Elizabeth, with its Wars, its Reformation, its Armada that gave us Shakspeare, Ben Jonson and Massinger. We have thus Epic Poetry or the poetry of the past—of history, Lyric Poetry or the poetry of all times—of feeling, Dramatic Poetry or the poetry of the present—of action.

In considering the early poetry of Greece however, we would merge the Lyric in the Dramatic, of which it formed a necessary and constituent part, and consider 1st the Early Epic, 2nd the Early Dramatic Poetry of Greece.

1st. The Early Epic.

The mere critic and antiquary may discover in Greek literature the names of authors previous to Homer, but we cannot recognise any of sufficient importance, or any whose names are supported by sufficient

evidence. Logographers, Homeridæ and Cyclic poets existed floating at large on the sea of Chronology, but such are rather the imitators and admirers of Homer than his inspirers. There can be no doubt that bards existed before him, but they had no more influence on him than the *Gesta Romanorum* and other early Saxon chronicles had on Shakspeare. We shall therefore confine ourselves to him as the Epic poet of the world, the man before whom Virgil, Dante, and Tasso must bow, and with whom Milton alone, and on very different grounds, can claim a just equality.

Homer is no preacher of Morality. His object never was to teach Ethical doctrines. However these may be *indirectly* drawn from the various events and characters of the Epos, there is no evidence that it was the design of the poet to inculcate dry lessons of Morality. Such is the province of the didactic poet, such was, to some extent, the function of one who has sometimes been most incorrectly termed an Epic poet—Hesiod. There have been many critics that pretend to discover in Homer a new moral teacher, who anticipated the sublime truths of Christianity by many centuries. In this respect few subjects are more curious and instructive than the whole history of Homeric criticism. It is the most triumphant testimony which could be given to the original genius of the poet, that there is no author who has been so much admired, and concerning whom there has been so much learned disputation. It is thus that Homer stands unrivalled in the history of literature, and the mystery which is thrown over his origin and life, as well as the disputes which have arisen regarding his works, are faintly paralleled only by the somewhat similar circumstances in which our own Shakspeare is placed. Not the least interesting of these points of discussion is that regarding the very subject which we are now investigating. Even so early as Pisistratus, there arose Theagenes of Rhegium, the founder of a new school of critics, or rather illustrators of Homer. His object was to prove that there runs throughout the whole of the *Iliad* and *Odyssey* a continued series of symbolisms. With all the play of a bold fancy, he considered the whole as a grand mystic allegory, in which religious belief, moral feelings, and metaphysical subtleties, are personified by gods, heroes and events. This was an idea so novel, and so philosophically attractive, that in ancient Greece it had not a few supporters.

With the revival of letters in the middle ages it was again pro-

pounded, though decked out in a new dress, more adapted to Christianity. Some critics then began to search in Homer for the existence of a pure religion, which, as they asserted, was substantially the same as that taught by Noah to his descendants, though in an altered form. They considered the poems and their whole religious mechanism as merely an allegorical account of Bible truth, disguised and slightly corrupted by the unwieldy nomenclature of Grecian Polytheism. It was accordingly their favourite task to trace the resemblance even in the minutest event. The most distinguished of this school was a Dutchman of the name of Gerard Crocius, who fully explained the theory in his "*Homerus Hebraeus*."

It was to be expected that the recent researches made by scholars on the subject, and the prodigious advances in Homeric criticism and classical investigation, would have for ever consigned such views to oblivion. Yet the old theory was lately revived, by one who holds a high position as a scholar and a Christian, but whose enthusiasm for his theory has had the effect of somewhat blunting his acuteness of intellect. In the "*Homerus*" of Archdeacon Williams we find the details of these views wrought out most elaborately. Now, however allowable it may be for a commentator on Shakspeare, such as Dr. Hermann Ulrici—the latest and best, to find in his works a system of Christian Ethics, seeing that he was a Christian poet, we submit that it is going too far to apply the same kind of criticism to Homer, whose mythological and ethical views are so opposed to those of Christianity. The former may with justice be permitted to describe Hamlet as the personification of "the Christian struggling with the Natural man," but surely it is looking for an extent of morality and religion altogether foreign to the age and nation, for the latter to trace in the works of our poet, "most of the essential principles by which the Christian religion is distinguished;" and in so doing to represent the king and queen of Troy as those "who loved iniquity and hated justice, until their consciences were seared as with a red hot iron;" "from whom the day of grace had passed away, and for whom there remained a fearful looking-for of judgment." That criticism is ever the best which is the most simple and natural. It is utterly subversive of right judgment for a critic to apply himself to the study of any work of art or intellect, actuated by preconceived ideas and prejudices. The influence of such on our judgment to some extent cannot be avoided, but, as far as possible, the mind should

be a *tabula rasa*, on which to receive clear and impartial opinions springing from the actual truth. Did such commentators as those of the symbolic school thus study their author, they would find, that their opinions are not those which naturally arise from a subject treated by a poet of such exquisite simplicity, but that they were received only after the most extravagant distortion of the simple sense. A Homer, not only of such morality, but of such pure and undefiled Christian theology, existing in the heroic age of Greece, seems to us an unparalleled and monstrous anomaly.

Nor is this all. The curious history of literary and scientific controversy abundantly proves, how prone the human judgment is to delight in extremes. Homer, who was most justly admired by the ancients as the father of Poetry—Homer, in whose works they discerned the utmost beauty and sublimity, as well as, in many cases, the purest morality and virtue—Homer, whose praise has in all ages resounded throughout the civilized world, and from whose pages the sweetest and grandest poets of every nation have culled many beauties, this Homer was in the earliest ages of Christianity entirely reprobated and despised, along with all the other immortal productions of antiquity. We find Rufinus accusing St. Jerome of reading his works, and many of the early Fathers condemning the classics on account of their sinful mythology and vicious morality, and yet in such terms as shew the regret felt by cultivated minds. Such feelings and opinions might be excused in the early Christian Church, seeing that a reformation to be thorough must be somewhat extreme, and that Christianity was then in its infancy, and surrounded by innumerable temptations to Idolatry and Paganism. But, surely, in an age where no such circumstances exist, an age above all distinguished for enlightenment and education, those bigoted purists are to be condemned, who despise classical literature on account of what they ignorantly term its immoral tendencies, and would therefore banish Homer, that captivating, loquacious, innocent old man, from our public schools. How wofully does such a prejudiced enthusiasm for their own theories blind their eyes to all those beauties of style, those sublimities of thought and imagination, those descriptions of fancy, those delineations of character, and especially those gleams of a true morality, and aspirations after the good and virtuous, which have rendered Homer at once the father and the prince of Poets.

We have thus dwelt on a seemingly insignificant part of the sub-

ject, because it will lead us to a more clear and truthful understanding of the moral character which pervades this great poet's works. Having viewed it in a negative light, we shall be the better fitted to attempt a positive investigation into the Homeric ethics.

Whether the social state and manners which Homer describes were those of his own age, or of a preceding, it matters little to our purpose. It is however generally agreed, and is indeed most obvious, that the latter is the case. The internal evidence for this is so strong, that it would be foreign to our purpose to state it. The position of society which he so graphically paints, was semi-barbarous, equally removed from the degradation of the rude savage, a continual slave to his own animal passions, and from the more refined and civilised condition of those nations, who, like Athens in her palmyest days—the age of Pericles, had arrived to the highest summit of elegance and luxury. The morality therefore which we would *a priori* expect, not only in the Homeric literature but in all ballad poetry written in a kindred spirit and age, must be that suitable to such a state of society. We must look for neither, on the one hand, that spirit of pure morality, which being the offspring of Revelation must be true and in accordance with the will of Deity, and at the same time that degree of excessive polish and prudish delicacy, which somewhat marks such a highly refined and complicated state of society as our own; nor, on the other, can we hope to find, at least to any great degree, that blood-thirsty and savage fury, that rude and ignorant indecency, that total disregard of all moral and virtuous feeling, which are the repulsive characteristics of barbarism in its lowest form. The Homeric state of society seems to have been a transition from the latter to the former, and to have combined in itself some of the elements of both. In the various phases of their political and social life we have abundant evidence of this. We find on the one hand the unbridled licence and fury of the warrior, from whose heart is banished every feeling of mercy and common humanity, and on the other, traits of character, so utterly opposed to the former, that they can be reconciled only on this supposition. How often, in the progress of the battle, is the sweeping tide of blood arrested, and a ray of tenderness and heroic generosity lights up the remorseless attacks of the men of war! Where in the uninspired poetry of heroism can a scene be found like that in which, in the very din of battle, and actuated by all the eager hatred of relentless warriors, the poet with

graphic pencil has portrayed the encounter of the son of Hippolochus, and the son of Tydeus—of Glaucus and Diomedes. The fate of the battle is suspended, while a glimpse is afforded us into the hearts of the two heroes. How splendid in the moral sentiment, the descriptive eloquence and the poetic beauty is that dialogue between them in which Diomedes thus begins.

Τίς δὲ σὺ ἴσσι, φίριστε, καταθνητῶν ἀνθρώπων.

And again, with like generosity and chivalrous feeling, Glaucus replies, and uses a simile which, from its striking beauty and moral effect, is unsurpassed in poetry and has been copied by all her votaries, which Pope thus paraphrases.

Like leaves on trees the race of man is found,
Now green in youth now withering on the ground.
Another race the following spring supplies,
They fall successive and successive rise.
So generations in their course decay,
So flourish these, when those are passed away.

And who can read, without the tear of sympathy starting to his eye, that most exquisite of all the efforts of the Homeric muse, when in the same battle he pictures the blood-stained and warrior Hector retiring from the battle around the walls of Troy, and entering the city. See how the Trojan wife asks eagerly for her husband, the daughter for her father or her brother. Here his fond mother meets him, and hanging upon his hand, she strives to refresh his thirsty soul, to cheer his fainting heart; there the sacred procession lines the majestic streets, as the wailing maidens near the temple of Athênê, and the fair cheeked Theano opens the gates. And with what beauty and pathos does the last act of this gorgeous picture close, when the stout-hearted warrior is seen on the lofty tower of Ilion, gazing with eager fondness on his wife and infant son. Where in all the range of poetry ancient and modern can be found a scene to equal this in simplicity and soul-moving affection? We can hardly believe that it is the same poet who paints in such horrible exactness the terrors of war, that now unlocks with nature's key the inmost recesses of the human heart, and places before us in vivid reality the death-doomed Hector and the forboding Andromache taking their last and long farewell. It is such

scenes that endear the poet to every nation, in every stage of civilization.

The state of Homeric manners and morality of which we have spoken is farther seen by comparing it with those of a later age, say of Pisis-tratus. Not only is the language of the two periods different, but in Homer there is an almost total want of those higher signs of civilization which distinguished that age. We do not find the same political opinions, as developed in the many varieties of government, despotic, monarchical and republican, nor the same amount of generally diffused intelligence, as shewn by the habits of reading and writing, nor the same acquaintance with the tactics of war, and with the arts of peace. There is above all entirely wanting any evidence of real union and centralisation, the beginnings of which ever mark the advance of a people from a semi-barbarous state to that of higher refinement. We have in the historic period of Greece the Amphictyonic Council, and the desire for a closer union and intercourse shewn by the many religious festivals. The characteristics of Homeric society are entirely different from these. The only form of government with which we meet in the heroic age is the monarchical, which seems to have been gradually developed out of the patriarchal rule, seeing that it is of so peculiar a nature. Although the kingly office had great privileges conferred upon it, yet the checks to the undue exercise of tyrannical power were many and imposing. The king like Alcinoüs in Phæacia, appears to have been little distinguished from the other chiefs or *Βασιλεις*, who almost equalled him in power.

A high standard of morality is generally denoted by the nature and extent of the intercourse between the sexes, and between the various parts of society. Now, in the times depicted in the Iliad and Odyssey, we find the almost universal characteristic of the Greek tribes most thoroughly in the ascendant. Everywhere is there seen a state of isolation and a separation of various tribes and even great families. What may be termed the nobility consists of a few powerful houses descended from the gods, and partaking of their supernatural attributes. We find the whole race divided into certain tribes or clans somewhat corresponding to the Roman *gentes*, and moving altogether within their own narrow circle. This feeling of isolation seems to have been almost indigenous to the soil of Hellas, and to the undue influence of this she owed her decline and final downfall. We see it evidently in the heroic age, it

again appears in the Persian invasion, it shews itself during the whole Peloponnesian war, and it is to its existence in its strongest development in the Achaean and Aetolian leagues, that we must ascribe that facility with which the Romans subdued Greece. How inimical is such a state of society to the cultivation and exercise of all the purest feelings of the heart ! Where can be found, except in the contracted circle of the clan or family, those exalted ideas of humanity, that pure love of virtue, and those outgoings of the heart in the channels of benevolence and generosity, which are the most glorious attributes of humanity ? It may be objected to this view of Homeric morality, that the whole framework of the *Iliad* consists of a union of the various states of Greece in one common expedition. We admit this, and ascribe to its existence much of that interest in plot, beauty of character, and purity of morality, which so often distinguish the epos of Homer. But yet even here the marks of a semi-barbarous age are visible. The union is often more nominal than real, and it generally serves, rather to combine into one grand but disorganised whole all the elements of Grecian society and character, than to present it in its entireness and beauty, as organised and harmonious in all its parts. How much of the interest and plot of the *Iliad* turns on the eternal squabbles of the leaders of the expedition, and its main object is to picture the fearful results of such a dissenision.

The mutual relations between the sexes, however, were not of that restricted nature which distinguishes the later ages of Grecian history. A consideration of the female characters of the *Iliad* and *Odyssey* will tend much to exalt our ideas of Homeric morality, always considered in reference to the character of the age in which he lived. The female creations of his muse almost rival those of our own poet—Shakspeare. If the latter, placed in circumstances and in an age so very different from Homer, is renowned for his *Lady Macbeth*, his *Ophelia*, his *Juliet* and his *Desdemona*, how great must be our admiration of a poet, who, in the heroic age of Greece, altogether unacquainted with the sublime morality of Revelation, and nursed amid war and bloodshed, and all the hostile elements of a rude age, could, with the fairy wand of his fancy, and with the exquisite taste of a feeling heart, so idealise the heroines of his own day, and image forth the sublime yet simple conceptions of a *Nausicaa*, a *Penelope*, an *Arete* and an *Andromache*. And again, true to nature and the ac-

tual state of female society in his own day, have we not the dark side of the picture shadowed forth in the loves of the gods, and in the conduct of such characters as Clytemnestra, Alcmena and Helen. Not the least attractive of the charms of the Homeric muse is the glimpse which we have into the state of domestic society; we there behold the simplicity of the maiden, the filial love of the daughter, the retiring modesty of the virgin, the deep affection of the wife, the beaming love of the mother, and the becoming dignity of the matron. We see the princess on her way to the fountain, or washing in the river, or seated in the midst of her maids plying the distaff. We behold the prince herding the flocks, or engaged in the athletic sports of the gymnasium. All such graphic delineations of Homer's pencil shew that the youths of both sexes mingled somewhat more freely than is commonly supposed, and certainly with much less restriction than some centuries later.

But yet there was a blank in the heart of the Homeric chief, which even female society could not supply. Who could respond to those lofty aspirations which ever and anon swelled his heroic heart? Who could be the repository of those burning thoughts of revenge, or those ambitious longings after glory, which urged on his soul? Who could be meet companion for the warrior as he plunged into the thickest of the fight, for the ruler who swayed the destinies of a nation, for the man who trod a path far removed above that of menial mortals, whose sex opened to him a field of action denied to weak woman, and whose whole nature and being were of such a heroic and supernatural order? Who, but a hero like himself, with the same lofty soul and magnanimous aims, with a heart to love and a will to serve his friend?

Accordingly we find that of all the social relationships described by Homer, that of heroic friendship is the most pure and perfect. Indeed it is inherent in the very idea of a Homeric chief, that he should be accompanied by some trusty companion, who combined in himself at once great personal powers and a reverence for the superior character of his friend. What is it that gives to many passages of the *Iliad* such a charm, but the friendship of Achilles and Patroclus, and in the more indistinct groupings of character in the back ground, have we not Diomedes and Sthenelus, Idomeneus and Meriones, as well as others, the consideration of whose character be-

longs rather to that division of our subject which treats of Dramatic poetry. To violate such lasting friendships, or even to disregard the common laws of hospitality, was considered as the most detestable crime of which a Greek could be guilty. All other laws of morality in ancient times are defective except this, and how refreshing is it amid the dark vice and sin which too often blacken the character of antiquity, to meet with one pure ray of celestial light, and to refresh our hearts with those by no means unfrequent pictures of godlike friendship, the strength and purity of which are only surpassed by the annals of ecclesiastical persecution and martyrdom. In this at least modern times may learn a lesson from pagan antiquity.*

The only proper light in which we can view Homer is as the embodiment and idealiser of the social habits, ethical opinions and moral feelings of his own day. His poems were not intended for the favoured few, who, in an analogous state of society in other countries, might be supposed to be the only repositories of taste and learning. They appeal to the whole Hellenic race, they move every chord in the heart of the impulsive Greek, and he sees in the words and actions of the heroes as they step across the stage, the embodiment of himself, the picture of his own feelings, opinions and aspirations. Homer was the bard of the people, the minstrel who sung his lays alike to prince and peasant, the poet who did not create anew, but who embodied existing traditions and feelings in the grandest verse. Behold him on the wayside, or amid the merry revellers at the feast, or the sportive *athletæ* in the gymnasium. See how, like a second Demodocus, he strings his harp to the praises of his favourite Achilles, and sings of his deeds of glory and of war, while the hearts of his youthful auditors beat high in their breasts, the eye flashes with a noble enthusiasm, and the soul swells with ambitious longings for a like glory and a like renown. What must have been the result of presenting to the minds of the youths of Greece such noble conceptions and ideas, not stated didactically with all the forbidding aspect of a sententious and axiomatic morality, but displayed in action, and adorned with the genius of a Homer? It must have had a most healthy effect not only on their fertile imagination, but also on their moral judgment.

It is in this that the character of the Homeric morality shews

* Written before May 11th.

itself most invitingly. His object was not to inculcate moral lessons, but to awaken moral feelings, not to move the understanding by the force of abstract reasoning, but to excite the heart, with its pure and virtuous feelings. Some critics, and many well meaning persons, object to the study of works of the imagination in general, because their purpose is not ethical and didactic, because every page is not covered with moral sentiments and wise maxims, and if this objection holds good at all, it is especially applicable to Homer. In no epic poet do we find so few maxims of morality as in the great father of poetry. And we venture confidently to assert that the moral influence of even Pagan Homer will be found to be far greater, and more effectual for the eradication of vice, than the wise precepts of many ancient and modern Philosophers. If we are to view poetry, as such critics would have us, Hesiod is infinitely to be preferred to Homer. We see in the works ascribed to Hesiod the very highest moral purpose. You will find nowhere in all antiquity such a preacher of morality as he. You will find nowhere such views of nature and of providence, or of that dark cloud of human suffering and injustice which blackens human life, as he gives. It is Hesiod who most ethically represents the connexion between gods and men by the various ages, every one degenerating more and more, the farther it is removed from the great source of all good—the gods. If we view it in this light, Hesiod, for all ethical purposes, is infinitely to be preferred to Homer. But is it so? Let the voice of the world decide, let every feeling heart, who has taste to appreciate the beautiful, answer.

And here it is that we see the superlative truth of the trite proverb, "example is better than precept." Maxims and axioms, truisms and crudities are morally useless for the reformation or even refinement of the manners of any nation or individual, unless accompanied by examples of their being carried into successful operation. This Homer to no little extent does, and it is no objection that, while abounding and standing unrivalled in the delineation of character, he does not sufficiently or even at all describe its ethical basis—that he gives us examples certainly, but not precepts. Homer was a Poet, not a Moralist, an Epic not a Didactic bard, and it would have been utterly opposed to and subversive of his true functions as such, had he strayed into the then forbidding path of the philosopher. We can only deduce the Homeric morality from examples, and, seeing that Homer had no ethical purpose in either of his epics, it becomes the critic,

who would describe the character of the morality which pervades them, to induce it synthetically from those pictures and delineations of character, with which his works abound. In further pursuing the subject we shall consider: 1 Some of the ethical terms used by Homer, 2 Give an analysis of a few of the principal characters, on the principles already laid down, 3 Notice the connexion between the Homeric mythology and morality.

I. The ethical terms employed by Homer.

The great basis of all morality, and that which shows itself in every nation or tribe that is not utterly degraded, is the conviction, that there exists in the breast of every man, an instinctive approbation of what is right, and condemnation of what is wrong. This always presupposes the knowledge of the existence of some superintending Being, who is acquainted with all the actions of men, and will, both in this life and above all in another, dispense, with just impartiality, reward or punishment, according to the deserts of those who stand at His tribunal. Now we find this existing in the Homeric poems, not only in its simplest state, as among the savages of the forest, but bearing the marks of an increased knowledge, and civilization. As was naturally to be expected, the ethical vocabulary of Greece is an exact transcript of Hellenic genius and disposition. In the Grecian expression of moral sentiment we find that refined taste, that love of the beautiful, that imaginative fancy, that versatile intellect, which have given to posterity a literature and a mythology unrivalled for poetic beauty. But when we turn to the stern unbending Roman how different the case. In the former we have freedom and beauty, in the latter necessity and gloominess. In the one morally good and æsthetically beautiful are synonymous, in the other, moral necessity and warlike courage are identical. In both no doubt the word for virtue is of similar origin, but in the former it has not preserved its original meaning. From *vir*,—we have *virtus*, from *ἀνὴρ ἀρετῆς*. But we find that from the earliest days of Grecian literature to the latest *Καλός* maintains its supremacy as the highest description of the morally good, more especially when combined with *ἀγαθός*. In that most expressive of words *Καλοκαγαθία*, the ancient Greek expressed his idea of that which was in every respect admirable and worthy of praise and imitation. Even so early as the age of Homer we find that *Καλός* is used in the sense of “right or morally good” (*Iliad* XXII. 19).

But *Καλός* is by no means the only, nor the most important of these

ethical terms. We find that Homer, in all the vividness of dramatic dialogue and action, personifies moral powers, and none more so, nor with more effect than the dreaded Atê, that principle of evil, that Homeric Satan, who acts so prominent a part in the epic. What Satan is to the *Paradise lost*, Atê, though in a lesser degree, is to the *Iliad*. We say, in a lesser degree, because she is by no means dignified with all the dramatic importance of a leading actor in the development of events in the epos, nor can she even lay claim to the dignity of an "independent antagonistic evil principle:" she is rather the personification of the excess of vice or weakness not only in men, but even in the gods themselves.

And here we notice a prominent feature of the Homeric morality, and of that of all nations who have not been blessed with a divine Revelation. It is a cause by which many speculative philosophers have endeavoured to account for the origin of our moral judgment. Why do we say of one action that it is wrong, and of another that it is right? Simply from this reason, that that which is right, when carried to excess, becomes wrong, and that a virtue when practised immoderately becomes a vice. This is natural to man in a simple state of society, and we find abundant evidence of it in the *Iliad*, as we shall have occasion to see, when considering the character of Achilles. The other ethical terms, which Homer chiefly employs, are these. Themis, law or justice; Dikê, right or equity; Timê, honour or price; Poinê, payment or retribution; Hybris, insolence; Litai, supplication or propitiation. On these time does not permit us to make further remark, so that we pass to the 2nd question—how the principles already laid down are illustrated in a few of the characters drawn by the poet.

And here a wide display opens on our view of that genius, which in the delineation of character, has been rivalled only by Shakspeare. Did no other proof exist, this would be conclusive on the subject of the Homeric unity, and clearly show the futility of the Wolfian hypothesis. It is impossible that any number of bards could have conceived the character of the great Protagonist of the *Iliad*, and not only so, but that their various conceptions should so miraculously unite in beautiful, exact, and consistent proportion to form an ideal hero, who throughout every scene retains his own personal identity, with the most perfect harmony in the various parts of his character. And here

it is that we see the creative genius of the poet. Although so many actors move across the stage, animated by so many different feelings and emotions, not one of them is confounded with another, all of them are at once recognised, however humble and insignificant the part they play, by some great leading features of character which belong to themselves alone. There is none of that hazy mistiness which is so much the attribute of the supernatural; all is clear and well defined. We do not see them as it were in the dim and dusty shadows of twilight, but with the light of the sun beaming on them. Even their slightest idiosyncrasies, and peculiar characteristics are distinctly marked, and each one acts just as we would expect, from the idea which the poet had previously given us of him.

We see this more especially in their moral features, in their virtues and vices, which are most strongly defined. How exquisite, in this, the simplicity and naturalness of the poet! We have no drawing-room heroes, no sentimental black-guards of the Della Cruscan School. All is open and frank. If there is virtue, it is displayed without ostentation, if vice, it is unfolded without fear; hence it is that the Homeric heroes are specimens either of gigantic vices or gigantic virtues. With them every thing is in extreme, and right and wrong are often confounded and forgotten from this very excess. This does not arise merely from the fact that the Homeric heroes are somewhat of a supernatural character. We must ascribe it rather to that semi-barbarous or transition state of society in which the poet lived, when the passions are not sufficiently controlled, when the checks upon an undue exercise of power are much more relaxed, when the moral judgment is partial and inaccurate, and when everything is consequently displayed in excess. Civilization, on the contrary, has a restraining, a moderating, shall we say, a hypocritical power?

We must remember that the moral judgment of the heroic age differed much from that given to us by Revelation. That man was a hero, and was admired for his splendid character, who displayed undaunted courage in the field of battle, unrivalled wisdom in the council of the chiefs and elders, and an unstained, unbroken descent from the gods and heroes of the olden times. But this was not all, there must be seen, in addition, virtues of a more ethical character, the proper fulfilment of the duties of the few social relationships of life, a due regard to religious rites and religious vows, and a line of

conduct removed from base cruelty, and degrading immorality. As in the case of *Nápoleon Buonaparte* in France, the glory of conquest and triumph was sufficient to hide vice.

How infinitely is *Homer*, with his grand array of character such as we have described it, to be preferred to the Roman poet *Virgil*! Who would, for a moment, compare the characters of *Achilles* and *Æneas*, the former glorious in his virtues and admirable even in his vices, the latter stolid and impassive, a concentration of virtues and moralities, without one spark of life to vivify them or one spot of vice to set forth their brightness; the former true to nature and appealing to the finest sympathies of the heart, the latter, an abnormal unearthly production, a pet paragon of virtue, who sometimes disgusts by his unnaturalness, and always wearies by his sameness. See on the other hand *Achilles*, the hero of all its actions and all its glories: when gloomy and angry, he is, in our mind, identified with the dark heaving sea, whose tempests seem to rear responsive to the wrath which he nurses in his soul; when buoyant and active in war, he appears like its waves dancing with merry sparkling in the rays of the sun, and swelling onward with majestic roll, as they heave themselves up upon the golden sands. When explained on the principles we have already laid down, it will appear by no means wonderful, that the same man should at once excite our admiration and disgust, our delight and horror. On the principle of extremes and excess, his heroic sense of retributive justice degenerates into vindictive revenge, his deep regard for his own personal dignity into haughty pride, and his open-hearted generosity and partiality, into profuse extravagance. But yet who will not acknowledge that in studying his character, the feelings of admiration, sympathy, and even love predominate, and that we must oftener look upon him with compassion than with disgust. Inviting as is the consideration of the other characters in the *Iliad* and *Odyssey*, more especially *Agamemnon*, *Diomedes* and *Ulysses*, we must conclude this part of the subject, by a very brief notice of the connexion between the mythology and morality of Greece.

It is now that we have to deal with one of the greatest objections to the morality of *Homer*, not only in modern but even in ancient times. It is asserted that the delineations which he gives of divine character, and in fact his whole religious mechanism is faulty, in so far

as he ascribes to divine beings the most *immoral* thoughts and actions. And, at first sight, this objection seems somewhat plausible. Is it not true that every worshipper will conform in character to the object of his adoration, and that the man who adores a god, sensual, immoral and vicious, will himself imitate him in these respects? It must be acknowledged that there is some truth in the objection, but at the same time it is made too much from an ignorance of the character of poetry, and of the state of religious belief in Greece in the heroic age. The fact that all the vagaries of Zeus, and the immoralities of the inhabitants of Olympus, had little or no effect on Grecian morality, is easily accounted for on the following considerations. Though Homer introduced the gods into his epics, he did so for the better illustration, of character, and development of plot; he did not propose them as examples of morality or models of virtue. They were represented in the same light as the heroes upon earth, and the former differed from the latter, only in so far as their power was more extended, and their responsibility removed. The social life, and ethics of Olympus were only an extended edition of the social life and morals of Hellas. The immorality of Olympus, moreover, sprang from the heterogeneous elements of which the Grecian mythology was composed, which the Greek mind, with its plastic and adapting power, had combined into one grand whole. It yet remains to be investigated, how far the Greek mythology was indigenous, and whence, from what local traditions and circumstances, its many myths sprung. It was extremely combined and perplexingly intricate, and its various component parts must have had their origin at different epochs of religious thought, and in different places. Hence it is that we find so many different features of character ascribed to the same divinity, and so many inconsistent actions, in the same god.

A moral purpose, also, has been discovered by some German critics, in the Homeric representation of the immoralities of the gods. The poet, in common with his countrymen, believed in a great overruling deity or providence, who ordered everything for the best. But, in studying human nature, did not the reflecting mind of a superstitious Greek see, that all is not morally right in the world, or even in his own heart; that disease and death and moral disorder everywhere abound. What so natural then, as that he should transfer these ideas to the inhabited world above, and by seeing such a state of things in Olympus,

vividly impress them on his own mind? Reasoning from the less to the greater, from his own individual case to that of the gods, he saw in them also moral disorder and sin. Finally, who that has read Homer or the older epics *con amore* does not perceive that sly raciness, that dry humour, that charming naïveté, which so often abound when the gods are brought on the scene. The mythical expression of the olden time abounds in this with Homer. It is innocent and harmless, and adds interest and dignity to the poet's story, while it does not detract from its moral effect.

So much for the negative part of this question. What positively is the moral influence of the Homeric mythology? It must be confessed, not much. The chief influence is seen in its connexion with the exacting of punishment and the penalties due to divine justice. How awful the mysterious and undefined gloominess of the avenging Furies—these personifications of the terrors and alarm of a guilty soul. In the Homeric representation of a future state also, we find that the idea of retribution and punishment is chiefly prominent, while that of reward and bliss is somewhat obscure. Apart from revelation, how dark and dim is man's idea of the other world! Homer's belief in the efficacy of dreams and omens, is strangely opposed and superior to that of his age. How beautifully does he shew this in the reply of Hector to the comment of the Trojan augur on the omen of the eagle and the snake

The poet's idea of father Zeus with all his weaknesses is fine, and shews most truthfully the state of moral feeling in the heroic age. We find that the great leading features of his character exactly fit in, or correspond to, the social necessities and ethical opinions of the heroic age. We behold in him the personification of the leading ideas of the Hellenic mind, in reference to social order and happiness, and the relationships existing between man and man. His is the noble duty of acting as king of the Gods, and in this attribute do we behold the Greek idea of the grand ruling power of all organised society. Those very intrigues, which so shocked the feelings of later times, were of use in so far as they closely connected him with many other inferior deities. How many, and, in such an age, ennobling are his functions. He it is who protects society against lawlessness and wrong, who punishes the violation of oaths, who rivets with a strong hand the ties of hospitality, who preserves the industrious

from the robber and secures to him the fruit of his labours. His too is the glorious attribute of mercy,

Which droppeth as the gentle rain from Heaven,
Upon the ground beneath.

for he has power to pardon the repentant criminal. Does not the mighty thunderer of the skies precisely supply the great moral and legal necessities of such an age? And, we think, it might be easily shewn from an analysis of the characters and functions of the other divine beings, that in all, notwithstanding their immoralities, there exists some great moral attributes, which are exactly suited to the social wants of the heroic age. From all this it is not evident, that although there is no ethical or didactic purpose in the epics of Homer, there can be yet drawn from their varied characters and incidents, lessons of morality, which, amid the darkness of a pagan idolatry, shine forth brightly and attractively. A comparatively exalted system of ethics distinguishes the Homeric age from those which follow it, and it is to be regretted that, while the rudeness of one period gives place to the polished refinement of that which succeeds it, the simplicity of manners, the undisguised and unrestrained flow of human feeling and affection, the purity of morality, and sincere frankness of action should also be superseded by a most reprehensive hypocrisy and conventional refinement, by a lamentable degeneration and licentiousness.*

II. The moral character which pervades the Tragic poetry of Greece. We now pass from the more dim and unknown days of Homer to the historical age of Greece, and in doing so, leap over an intermediate space which embraces the later gleanings of the epic harvest, and the origin and culminating glory of the lyric muse. We pass from the Epic or Dactylic hexameter to the Dithyrambic, and omit to notice the moral character which pervades the lyric poetry of the period from 776 to 560 B. C. Such names as Sappho, Alkman, Archilochos, Tyrtaeus, Pindar, and the whole band of sweet lyric and moralising gnomic poets, are inviting, but stern tragedy beckons us on.

How strange and impressive the contrast between the Greek of B. C. 800 and the Greek of B. C. 500! What a change have three centuries

* Basil (Cæs in Fab Lib. II) well says "The whole of Homer's poetry is a praise of virtue, and every thing in him tends to this point, except that which is merely superfluous."

wrought on Hellas and her sons. The change in the literature is significantly expressive of that in the feelings and ideas. No longer does the stately epos march on with silent and majestic tread, no longer is the expression of Grecian thought confined to that grand combination of poetry, history and philosophy. The buoyant and impulsive nature of the Grecian heart, overcharged with sentiment and feeling, bursts forth in the wild and irregular strains of the lyric ode, or gives vent to itself in the free and commanding form of dramatic action and dialogue. A new world of observation opens on the mind of the Greek, and his whole range of perception and sphere of knowledge have been vastly increased. Those elements of a splendid civilization which had existed in such profusion in the days of Homer, but at the same time in such isolation, are now found to be harmoniously combined in one grand whole. The many nations and families in nations are gradually being brought into closer contact with each other, and the colonies which now begin to be founded, furnish a wider range of subjects for poetry. The religion too of the Greeks has to some extent undergone a change, not so much however in its essential character as in its external aspect. The ignorant simplicity of the heroic age has passed away, and given place to more impartial and extended ideas. Its rites have been to some extent multiplied and refined, and a few new objects of worship introduced, while its relation to the state and to morality has been altered.

From this state of things we would naturally expect that the tragic muse would avail herself of other subjects and feelings than her epic sister. The Persian invasion, accompanied by an acquaintance with foreign countries, with the luxury and refinement of the East, with its literature, its social habits, and religious rites, however much it might have an influence on the every-day life of the Greeks, did not to any great extent affect their literature. The old legends of the gods and heroes, of which Homer had sung with such beauty and grandeur, were enacted on the Athenian stage, and those heroic stories which, in all their fulness, had been embodied in the even tenor and majestic swell of the epic poet, were easily again decked out in all the glowing earnestness, the rapid energy, the oft rushing fury and moral pathos of the tragic bard. Much then that we have said regarding the moral character of epic poetry applies to this part

of our subject. And although we cannot agree with Aristotle in ranking the tragic higher than the epic muse, we think that the moral character of the former is necessarily, from its very nature and objects, of a higher cast and of a purer tone than that of the latter.

It may seem strange that this should be the case. What sympathy can there be between earthly man chained down as it were to this world, and those supernatural beings, whose aims and feelings, whose desires and associations, are of such an elevated character? How slight must be the moral effect of representing such dim and mysterious beings, in their varied actions, and actuated by their varied emotions. He who makes this objection is indeed ignorant of the true character of Grecian tragedy. That in its very essence and conception it was ideal is true, only in a certain sense, of all nations. The Greeks have, in their works of art, most beautifully combined the ideal and the real, and have at once presented us with all that is true in human nature, and elevated in sublime conception. They have given to their artistic creations, at once the dignity of heaven, and the moral sympathy of earth, adorning them with all the ethereal and celestial attributes of supernatural existences, and the kind love of, and the most intimate connexion with, man's earthly nature. It is here that we discover at once the beauty and the moral character of Greek tragedy, which so combines earth and heaven, the love of the human, with the love of the divine. How great then must we conceive the moral influence of such tragedy to have been upon its spectators. But let us more narrowly enquire into its exact nature and moral character.

Tragic poetry has its foundation in man's nature, in his sympathies, his fears, his loves, his desires, his present, his future state. The calm equanimity of the epic is changed into the soul-kindling earnestness of the tragic poet; the beautiful but lifeless statue becomes a living actor, as it steps down from its pedestal with majestic tread, and mingles perceptibly in all the higher thoughts and aspirations of the soul. The intellectual and meditative Greek, as he listened to the copious flow of tragic eloquence, and surveyed the unstable character of human greatness and the shortness and vanity of human life, was most vividly reminded of all that could contribute to the refinement of his moral judgment, and the reformation of his daily life. What must have been the effect on his impulsive nature as he listened to

* What the lofty, grave tragedians taught
In Chorus or Iambic, teaches best
Of moral prudence;

While they treat
Of fate, and chance, and change in human life,
High actions and high passions best describing."

Prominently as the idea of Fate or Destiny is brought forward in the epos of Homer, it is not so much developed and applied as in the tragic poets. We find that all nature is subject to this over-ruling power, and that even the gods themselves must obey its decrees. It is this awful destiny that gives to the Greek tragedy its sombre cast, its stern and gloomy grandeur. There is an outward necessity that compels man and deity to pursue the path of rectitude and moral right. It is on this common ground that gods and men, though separated by an immense gap, can meet, and strive and struggle together against the reverses of fortune, and the scowls of adversity. But the Grecian belief in destiny is very far removed from fatalism, with all its attendant social evils. When the adverse gales of fortune buffeted the vivacious and sprightly son of Hellas, he was far from bending to their influence under the degrading belief that he could not withstand and overcome it. He had in that swelling heart of his a something that whispered to him of better days, and of a power to defy adversity and overcome its evils. Destiny in Greek tragedy has a counterpoise, a balance, an opposite pole—that of inward liberty. In the Greek, there existed the same awful and inexplicable mystery as in modern philosophy, the combination of external necessity and internal moral freedom. It is in this belief that we must look for the chief development of the moral character of the Greek drama. It is by the influence of this that we can behold the moral and spiritual nature of man brought out into full play, engaged in a glorious conflict with the grosser and more sensual desires of his soul. As the epos of Homer represents Odysseus struggling with the physical powers of nature, and triumphing over winds and waves that he may reach his beloved Ithaca, so does the tragic poet picture his hero as engaged in dire conflict with the opposing elements of sensuous passion, and, victorious over the winds and waves of earthly desire and self-indulgence, as at last reaching the exalted heights of a pure morality and an approving conscience.

How humbling to proud man are the moral lessons of the tragic

misery, his enjoyments fleeting, his power a shadow, his happiness unsubstantial, his fancied glory an unreal mockery. He is like Marius amid the ruins of Carthage, or rather like the geologist as he stands amid the stony monuments of ages that preceded the birth of man, and as he surveys their impressive records feels his own littleness and insignificance.

Unlike the early epic poetry of Homer, we meet with evident moral purpose in the Drama. This is especially seen in the Chorus and the place that it takes between the actors on the stage and the spectators. It is the ideal spectator, the representative of the whole human race, the fountain of sympathy and advice, the soother of excessive grief or immoderate wrath, the inciter to necessary duty or the monitor against a sinful course of action. In it man sees himself reflected, and it aptly comes forward as the exponent of his feelings and opinions. Its duty is at once practical and speculative—practical, inasmuch as it interferes in and guides the development of plot on the stage—speculative, inasmuch as it brings all the actions there performed to an immutable standard of right and wrong, and pronounces accordingly. It contains in itself the moral of the play, but never so fully expressed or anticipated as to break the chain of interest in the spectators, or impede free action in the players. Those Athenians who met at sunrise in the crowded theatre, with the sky of heaven above them and looking down on the glad waves of the Saronic Gulf, and sat there till sunset listening to the lofty truths of *Æschylus* or witnessing the long dramatic pictures of *Sophocles*, must have had an intelligence and a native wit that is never manifested by moderns in these degenerate days. Then men lived and thought, and enjoyed as they lived, now, we are too busy to live, but hurry on burning the lamp of life too intensely, and sacrificing all innocent enjoyment in and of God's earth for speedy gain and emolument, till we drop into premature graves. Modern civilization has this sting in it, with all its virtues and achievements. The problem of our day in the crowded cities of Europe, as well as in the swarming villages of Bengal, seems to be how to give to man what God meant him to have,—rest as well as labour, comfort as well as toil, time for the concerns of the soul, as well as muscle for the gain of the body. Without a minimum at least of comfort, it is vain to educate the ryot or reform the pariahs of our home population.

In these few hints as to the moral spirit of early Greek poetry, we would have it noted that the standard by which we have judged has been entirely a relative one. Because the Greeks had a little more natural morality in earlier than in latter days, it does not follow that they were a highly moral people. There can be no doubt that ere mere hero-worship had become developed into wretched Polytheism, the *morale* of the people was higher, but it was only a negative morality at all times a morality, too, rather the concomitant of the infancy of the nation than its normal state. Even when such minds as Socrates and Plato systematised morals and applied them, as they never were before by uninspired man, all was mere speculation, and had as little influence on their own lives as on those of their disciples.

With all the natural flow of joyous life in the early Homeric days then, there was a want. The heart panted unconsciously for something higher than existed to satisfy its longings, and meet its desires. While we go back to these times for a revivifying of our effete energies by coming face to face with nature, let us turn to a higher and nobler literature for lessons of morality, for examples of men who have taken their place in the van of life's battle, and died nobly fighting. To you has been displayed the treasures of English literature; before your eyes have passed the men who have made it what it is, from the great Alfred down through the stream of time to Chaucer, to Spenser, to Bacon, to Shakspeare, to Milton, to Cowper, to Wordsworth, to Coleridge. You have seen a long line of men whose lives are immortal, whose thoughts shall never die. Let them enter into your very soul, let them become part of your intellectual armoury. Talk not only of them, but feel them, act them, subjectify them, that the reproach of English education in India may be wiped off, and her youth rise up men of action as well as thought, nobility of soul as well as rotundity of words.

NOTE.—We would direct attention to an exquisite paper by Thomas De Quincey, published in the last issued volume (VI.) of his "Selections Grave and Gay," and entitled "Homer and the Homerids." Whether we look at its scholarship, literary excellence, fine humour or magical style, it is unsurpassed in the 'Literature of Homer' and is well worthy of the finest writer in the English language.

Lecture on Chemistry applied to Agriculture,

DELIVERED BEFORE THE MEMBERS OF THE BETHUNE SOCIETY.

On Thursday, 9th July, 1857

By GEORGE E. EVANS, B. A.

MR. CHAIRMAN AND GENTLEMEN,

The present Lecture cannot be viewed in any other light than that of an Introduction to the subject of Scientific Agriculture. I must therefore content myself by giving you a general outline, as the entering into details would occupy a great deal too much of our time at present.

The Science of Chemistry has for its object, the study of the nature and properties of the different substances of which the earth, the air, the water, and their inhabitants, namely, plants and animals are composed.

The applications of the discoveries of Chemistry to the various arts of common life, as dyeing, bleaching, the working of metals, Agriculture, and many other pursuits, are in the present state of the science very numerous, and very important, and as science advances, we have no doubt many more valuable additions will be made to our present knowledge. I must not omit to mention the vast importance of Chemistry in connection with Medical Science, as it guides the skilful physician in the preparation of those remedies for the relief of human suffering in disease.

The subject of our Lecture this evening relates particularly to Chemistry as applied to Agriculture, reserving for myself the pleasure of entering more fully upon some future occasion into its merits with respect to other arts and manufactures.

The prosperity of any nation depends upon the state of its Agriculture, and there can be no science of so much importance, as that which teaches the cultivators of the soil, the best means of raising the largest crops, off the smallest space of ground, at the lowest possible expence, and with the least permanent injury to the soil. The science of Agricultural Chemistry comes to the aid of the farmer,

and points out to him the surest methods of effecting his purpose. A knowledge of this science, will in many cases save the young farmer a world of trouble and expense, by suggesting to him the proper plants to grow upon certain soils and in certain situations; the composition of such soils; and the proper kind of manure to apply to each. Again, when he finds a crop fail upon a soil, with which he may have taken every possible means to ensure a fruitful return, he can by a few chemical tests applied to the soil, in solution, in either water, or dilute acid, at once make himself perfectly satisfied of the cause, and like the physician, immediately apply those remedies, which by his scientific knowledge, he deems the safest.

When we consider the numerous benefits that have arisen to many of the arts from the introduction of Chemistry, it becomes matter of surprize that so little attention is given to it in this country, in connection with agriculture.

In the British Isles, on the Continent, and in America, farmers have for several years back had their eyes opened to the innumerable advantages to be derived from a study of the chemistry of their rocks, soils, manures, waters, and the numerous vegetables, upon the proper growth of which so many millions depend for support.

Lavoisier was the first chemist who devoted any attention to agricultural science, and he appears at that period (1789) to have been convinced of the utility of scientific farming. Sir Humphrey Davy gave to the world, many useful suggestions for the determination of the value of soils, chemical and mechanical, but his labours at the time did not meet with the encouragement they demanded.

Most chemists have however in late years turned their attention to this neglected science and have made it assume quite a new character, and farmers can now sit with ease and delight to listen to the suggestions of scientific men regarding the management of their crops and soils; and subjects which before appeared to them confused and unintelligible now rendered pleasing and instructive.

Baron Liebig of Giessen has undertaken some experiments applicable to the development of scientific Agriculture, and the result of his labour has been the production of several valuable publications in the form of Letters, &c. from the pen of that eminent Chemist. Since the appearance of these works, others have been published from

time to time by many clever men, which are perfectly intelligible even to those persons who have not received a scientific education.

Various Societies have been formed for the propagation of scientific Agriculture, among the foremost of which may be mentioned the Royal Agricultural Society of England, which will compare with any similar Society in the rapidity of its progress in its early days. This Society was formed in the year 1838 and numbered 250 members. Earl Spencer was elected first President. In the year 1841 the number of members had increased to 5,382 and the income amounted to £4,794. Thus shewing what a lively interest was taken in agricultural matters.

In later years this Society secured the services of Dr. Daubeny, Lyon Playfair, and Professor Way, men eminent for their scientific knowledge, who from the numerous lectures on agricultural chemistry delivered by them to the members of the Society, infused a new spirit into the operations of farmers, they evincing their appreciation of the subject by working out practically on their farms those experiments recommended by those chemists. This Society has given rewards and still continues to hold out inducements to the Authors of original papers on the value of different manures, &c. requiring a knowledge of agricultural chemistry on the part of the writer.

The names of the Highland and Agricultural Societies of Scotland may be mentioned as taking a leading part in the Agriculture of that country.

In Ireland, the Royal Flax Improvement Society has done much towards instructing the farmers in the proper management of Flax; most valuable as a staple article of commerce to a large portion of the dealers in that commodity.

Not many years ago the Chemico-Agricultural Society of Ulster was formed by several gentlemen interested in Agricultural matters, and by their exertions, combined with the labours of their indefatigable and talented Chemist, Professor Hodges, have placed the name of the Society among the first of the day.

I cannot pass on without adverting to the success which has attended the establishment of Agricultural Societies at the Presidencies, more especially that of the Agricultural and Horticultural Society of India, the members of which enjoy many advantages in the form of Agricultural discussions at their meetings, numerous papers connected

with Agriculture and Horticulture which appear in their Journal, and the distribution of prizes to the most successful writers on Agricultural matters.

Having thus given you a very slight insight into the means which have been adopted for the improvement of British Agriculture, I must proceed to our more immediate subject, as my stopping to give you a detailed account of the History and Progress of Agriculture of the British Isles would occupy too much time at present, and which in itself would form matter for a very extensive Lecture.

Nearly all the substances that I have adverted to as being the objects of chemical study, namely, the various rocks, sands, clays, and soils; the water of seas and rivers; the materials of plants and animals; are of a *compound* nature, that is, made up of two or three or more different substances united or combined together in so close and intimate a manner as not capable of being separated by any common means, although through the powerful agency of Chemistry are rendered susceptible of being resolved into simpler forms of matter. These latter may themselves be composed of different substances but still capable of separation by proper chemical means. Such an act of separation is called *chemical decomposition*, having reference to a change in the properties or characters of the bodies; in opposition to changes termed *physical* brought about by the action of Heat, Electricity, Magnetism, and the attractive forces, all of whose laws, lie within the province of Physics or Natural Philosophy. Just allow me to give you an example. We will take a piece of limestone with which all are familiar in the form of marble, coral rock, or chalk, this by the application of a red heat is decomposed into quicklime, and a gaseous body (carbonic acid). Now if we examine what remains we find it to consist of quicklime, nearly half of the weight of the original limestone having disappeared. The loss is occasioned by the separation from the limestone of carbonic acid, which is driven off, under the influence of the heat. Thus lime burners lose about 44 per cent. of the weight of all the stone used by them in their furnaces, in the form of an invisible gas, the properties of which I will describe to you presently.

Both the carbonic acid and lime are themselves compound bodies, the former being resolvable into two substances, Carbon and Oxygen, and the latter into Calcium and Oxygen, which have refused to be

further decomposed.—Such substances are called *simple* or *elementary*, and sometimes *chemical elements*.

At present the number of these simple substances or elements does not exceed sixty four, the true composition of even some of that number being as yet doubtful, and if we examine all the various forms which matter assumes, we find them composed entirely of this small list of substances.

The number most interesting to the scientific farmer is still less, being about sixteen, the nature and properties of which I will now describe to you, commencing with those necessary to the existence of plants.

A living plant and a living animal may be compared to a chemical laboratory, in which compounds are analysed or separated into their component parts, and recomposed into other substances distinguished as *vegetable* and *animal* productions.

These products consist of two distinct portions, *organic* and *inorganic*. The organic portion is capable of separation from the inorganic by the action of fire; it constitutes the greatest bulk of the substance in the dry state, and consists of a very limited number of elements, viz. Carbon, Hydrogen, Nitrogen and Oxygen. The inorganic portion is what remains behind in the form of *ash* after the organic matter has been burnt away.

I will now confine your attention to the ORGANIC PORTION OF PLANTS, and afterwards proceed to the INORGANIC. The soils and the crops which grow upon them contain portions of both of these substances. In all fertile soils the amount of organic or vegetable matter varies from 3 to 10 per cent, while vegetables, when burned, leave about from one-half to 20 per cent of inorganic ash.

The organic part consists of four substances known by the names of Carbon, Hydrogen, Oxygen and Nitrogen; these elements are always present in plants, and produce by their union, the different proximate principles of which they consist. It is therefore necessary to be made acquainted with their character, for it is only by a correct knowledge of these that we can understand the functions which they perform in the vegetable kingdom.

Carbon. We have a very familiar illustration of carbon in the

form of charcoal. It is a black, solid substance, more or less porous according to the kind of wood used in its preparation. It has the power of absorbing certain gases and of giving them off again when acted upon, and has thus been recommended as a disinfectant.

The diamond is the purest form of carbon; it with charcoal, lamp-black and all other varieties of carbon, burn away when heated in contact with air, and are converted into a gas termed *carbonic acid*, the properties of which I will describe after I draw your attention to the *elementary constituents*.

Hydrogen. This is a very important material in vegetable matter. It is a gas, colorless, inodorous, and invisible; very inflammable, burning with a pale yellowish flame, and evolving much heat, but little light. The product of the combustion is water. This gas may be easily procured by acting on some cuttings of zinc or iron filings with dilute sulphuric acid (oil of vitriol) the mixture will soon commence to boil up and give off bubbles of gas, this gas is Hydrogen. It is exceedingly light, a balloon filled with it, rapidly ascends. Hydrogen is not found except in combination with some other substance, water is the most common form in which it is presented to us.

Oxygen is another gas, it is colorless, has neither taste nor smell, and is invisible, it is not inflammable although a powerful supporter of combustion; a lighted taper introduced into it burns with great brilliancy; if a living animal be placed in it, its circulation and breathing become much quicker, it is speedily thrown into a fever, and after a few hours dies from exhaustion and excitement; in fact it lives too fast. This gas unlike Hydrogen is heavier than common air.

For the purpose of experiment it may be easily procured by heating a little chlorate of potash in a glass retort, and collecting the gas over water. Oxygen is one of the most important substances in nature; it forms about $\frac{1}{5}$ of the bulk of the air we breathe, is the supporter of animal life and the combustion of burning bodies. Were it by any cause suddenly removed from the atmosphere, every living plant and animal would perish and all combustion become impossible.

This is the gas the union of which, with hydrogen, forms water, the proportion being 8 of the former to 1 of the latter.

Nitrogen.—This gas is known by its negative properties, no taste, smell nor color; invisible, does not support life or combustion, and

a taper introduced into it will be immediately extinguished; you may naturally ask of what use there in nature is such an anomalous gas. It serves in the atmosphere to check the violent effects which as I explained to you before oxygen would have on the frame, if not thus diluted with this inert substance.

If a piece of phosphorus be ignited in a small saucer in water and while burning, a glass vessel inverted over all, causing the edge of the glass vessel to touch the water, dense white fumes will be formed which after a little time will clear away, and we will have nitrogen gas remaining.

This gas does not possess many remarkable qualities: it is a little lighter than common air and forms about $\frac{4}{5}$ of the bulk of the atmosphere. The difference between these gases cannot be ascertained by means of the senses, but by the aid of the lighted taper they are readily distinguished. Hydrogen extinguishes the taper but takes fire itself, Nitrogen merely extinguishes it, while in Oxygen it burns rapidly and with increased brilliancy.

Now, of this one solid substance carbon, and these three gases Oxygen, Hydrogen and Nitrogen, all the organic part of plants is composed. They however enter into the composition in very different proportions. Nearly one half the weight of all vegetable productions cultivated for the use of man and beast, consists in the dry state of Carbon. The Oxygen amounts to a little more than one third Hydrogen about 5 per cent, while the Nitrogen rarely exceeds from $2\frac{1}{2}$ to 3 per cent of their weight.

I will now proceed to explain the form in which the foregoing elements enter into the structure of plants. Plants derive their nourishment from the air and from the soil. This food enters by means of the minute pores of their roots, and also through those which exist in the green part of the leaf: as these pores are very minute, carbon or charcoal cannot enter in a solid state, it must enter in solution, for which purpose it unites with Oxygen to form CARBONIC ACID, the latter being soluble in water, finds ready access to the interior of the plant and through a series of beautiful changes, becomes a part of the growing vegetable. Carbonic acid can be easily procured in the following manner. Place a few pieces of chalk or lime-stone in a tumbler, on which pour a little spirit of salt (muriatic acid) diluted with water, a boiling up or *effervescence* is the result, and the gas Carbonic Acid given

off. Carbonic Acid is much heavier than common air, sp. gr. being 1.524, it is invisible and colorless, will not support life or combustion. This gas is evolved in the act of respiration of animals, and is most prejudicial to life, an animal placed in it will immediately expire. It is the presence of this gas which renders the air of crowded assemblies so oppressive, hence the danger arising from imperfect ventilation in houses, or the overcrowding of passenger ships, or places of public amusement, &c. without proper means of renewing the air. We have a very agreeable example of the taste and solubility of this gas in the refreshing beverage so much in demand in India, viz. *Belatee panee*.

I have stated to you that carbonic acid is fatal to animal life, it is absolutely necessary however to the growth of vegetables.

Animals in the act of breathing take in the gas oxygen which by the mysterious function of animal life, is made to unite with the superabundant carbon of the blood, and is exhaled in the form of carbonic acid, to which process we are indebted for the heat generated in the system. Now, plants by means of their roots and leaves absorb this carbonic acid, in their interior, decompose or separate it, retain the carbon, and give off oxygen. This grand arrangement naturally fills our minds with admiration of the wonderful provision made for our existence by the Creator of the Universe, but this is only one of the many similar discoveries to be made, in the study of the natural sciences.

Carbonic acid is produced in great quantity by the burning of wood, coal, &c. is given off from all decaying animal and vegetable substances, also during the fermentation of malt liquors.

It forms compounds called *carbonates*, a large and important group of salts some of which occur in nature in great quantities as carbonates of lime (limestone) and magnesia.

There are other acids the humic, ulmic, &c. containing a large amount of carbon necessary to vegetable growth, respecting which it is needless to trouble you at present.

WATER. This is one of the compounds formed by the union of organic elements. It has been analysed and found to consist of 1 of Hydrogen to 8 of Oxygen in every 9 lbs.

It is so familiar to us all, that it is unnecessary to dwell upon its properties. It is most essential to the growth of vegetables having the power of dissolving numerous substances. When rain falls, it sinks into the soil, and in its course dissolves some of the soluble

salts, it absorbs also its own bulk of carbonic acid, small quantities of oxygen and nitrogen, and when it meets any of these in the soil, forms a good means of transit for the food necessary to be supplied to all growing crops. Water is composed as I have stated of two gases, and by certain chemical operations these can be separated the one from the other; precisely the same operation takes place in the interior of the plant and according as each part may require Hydrogen or Oxygen such is supplied.

The AIR or ATMOSPHERE is another of the products of the combination of the organic elements—air is made up of Oxygen and Nitrogen, with small portions of carbonic acid, water-vapor and ammonia. These constituents are not chemically combined, but merely mechanically mixed, yet their proportions never vary, no matter from what quarter of the globe air may be obtained, on being subjected to analysis, it is found to consist of the same kinds of substances. We cannot recognise the air by means of the senses of sight or smell, we can *feel* it however, when enjoying the cool, refreshing evening breeze across the midday, or while writhing under its scorching influence during the mid-day hours, we *hear* it moaning listlessly through our Compounds, or rushing madly along uprooting trees and scattering destruction in all directions.

In round numbers the composition of the air may be stated as follows:

100 gallons of dry air, contain of $\left\{ \begin{array}{l} \text{Oxygen about... } 21 \\ \text{Nitrogen } \quad \quad \dots 79 \end{array} \right\}$ gallons.

The carbonic acid amounts to about one gallon in 2500 and the watery vapor varies from 1 to 2 gallons (of steam) in 100 of common air. The large amount of nitrogen serves as I explained before, to neutralize the otherwise pernicious influence of the oxygen, the noxious carbonic acid is in so minute a proportion as to be harmless to animals, while it is most beneficial to plants.

Before proceeding to the discussion of the Inorganic constituents, I might draw your attention to the *Structure and growth of plants*.

A plant consists of three parts, a root, trunk, and leaves, the use of the *root* is obvious, it serves to retain the plant in an upright position in the soil, and further, by means of its numerous fibres extending in every direction, the supply of nourishment, the *trunk* supports the branches, which present by means of the *leaves* innumerable minute

pores to the surrounding air for the absorption of those gases which the plant may require for healthy development.

Each of these parts has its particular duty to perform, while the roots absorb *liquid* food, the leaves inhale almost entirely the *gaseous*.

During the growth of plants there are certain curious compounds formed; very interesting to the student of agriculture, but my time being limited, I can only give them a passing allusion, these are STARCH, FAT, THE GUMS, GLUTEN, &c.

An elastic sticky substance called GLUTEN may be obtained by washing a little flour, previously made into dough with water, till the water runs off colorless, Gluten is the representative of a most important group of substances which contain Nitrogen, in addition to Carbon, Hydrogen and Oxygen. The members of the group are *gluten*, insoluble in water but partly soluble in Alcohol;—*Albumen*, resembling in its properties the white of egg—*Caseine*, which forms the curd of milk, when separated from the whey by rennet, or an acid.

The milky water obtained from washing the dough will gradually deposit a white powder namely STARCH. This represents a group of substances consisting of Carbon and Water, viz. *Cellulose* or *woody fibre*, *Gum*, varieties of which are *Dextrine*, *Arabic*, or gum arabic, *Cerasine*, or cherry tree gum, the *mucilages*, or adhesive matters which water extracts from oily seeds, gum tragacanth. *Sugar*, the Cane, Maple-tree, Beet-root, and that from many other plants, *Pectin*, &c. Now all these contain Carbon and Water in nearly the same proportions. The FATTY GROUP comprise the true fats and vegetable oils, waxes, turpentine and resins; they differ a little in composition from the Starch group; but all being simply composed of Carbon, Hydrogen and Oxygen.

There are also other Nitrogenous compounds as *fibrine*, *emulsine*, and *legumine* which derive their origin from the vital powers of plants, whence they are transmitted to animals as an essential part of their food.

All the foregoing substances must exist in those plants cultivated for the support of animal life. If the plants are deficient in this respect, they become unfit food for animals, and it will be seen, as we proceed, that a deficiency in plants may arise from the absence of certain ingredients in the soil upon which they may be grown.

Our minds are filled with admiration when we think over the many different forms which nature causes the same elements, Carbon,

Hydrogen, Oxygen and Nitrogen to assume, and the numerous varieties of the vegetable kingdom, which are constructed from so few and simple materials.

Having thus glanced at the organic elementary substances of plants, and the different compounds formed from them, we will now consider the EARTHLY or INORGANIC which in combination with the former are imperatively necessary to the life and luxuriance of plants.

These form a large and very important class.

When a plant is dried and burnt a certain amount of ash is left behind, differing in different plants, and even in those grown upon different soils, and although the amount of some inorganic substances is small in some plants, yet as we find the same materials existing in the bones of animals, the conclusion must be arrived at, that they are necessary to the formation of the latter.

I have said that the quantity of ash yielded by different plants is unlike. Prof. Johnston in his Lectures gives the following

100 lbs. of Wheat leave,... 12 lbs. 100 lbs. of Barley leaves, ... 25 lbs.

„ Oats, 20 „ „ Potatoes, 8 „

„ Turnips, 8 „ „ Carrots, 7 „

„ Red Clover, ... 16 „ „ White Clover, ... 17 „

„ Rye Grass, ... 17 „

So that the quantity of inorganic food acquired by different vegetables is greater or less according to their nature; and if a soil be of such a kind that it can yield only a small quantity of this inorganic food, then only those plants will grow well upon it which require the least. Thus, we often find that trees will grow well upon a soil which has refused to nourish the cultivated plants, on account of the smaller amount of inorganic food required by them. When we examine a plant we find that different parts of the same plant leave, when burnt, different amounts of ash. As we have stated Wheat leaves from 12 to 20 lbs. of ash, Wheat-straw will yield about 50 lbs. The leaves of trees contain more inorganic matter than the branches, and the branches more than the stem. The wood of the birch-tree, when burnt, yields in the 1,000 lbs. $3\frac{1}{2}$ lbs. of ash, the leaves of the same tree give 50. lbs. Wood of the elm yields 19 lbs. the leaves as much as 120 lbs. in the 1000.

This inorganic matter drawn from the soil is returned to it in the shedding of the leaves, and the salts, &c. which have been drawn from

the depths of the soil by means of the roots of the trees, are scattered over the surface of the ground in the shape of decomposing leaves, &c. which cannot fail to render the soil fertile. We have seen that the amount of ash or inorganic matter varies in different parts of the same plant, it is further found that the quantity differs in different specimens of the same plant, a good deal depending on the species, and the nature of the soil. De Saussure found Magnesia in the ashes of a pine-tree grown at Mont Breven, whilst it was absent from the ashes of a tree of the same species from Mont la Salle; the proportion of lime and potash differed also, Liebig gives other instances supporting the same view of the subject, which commands further inquiry.

In estimating the ash of plants with a view to practical Agriculture, its *quality* must be considered as well as its quantity. In the ash of one plant we find much lime, another much potash, and a third much silica, and hence draw the conclusion that one crop will abstract more of one mineral than another—thus wheat draws largely on the soil for soda, oats, requiring as much as 76 per cent of Silica. This will be very evident by comparing the numbers on the following table.

	Wheat.	Barley.	Oats.
Potash, - - - - -	19	12	6
Soda, - - - - -	20½	12	5
Lime, - - - - -	8	4½	3
Magnesia, - - - - -	8	8	2½
Alumina, - - - - -	2	1	½
Oxide of Iron, - - -	0	trace	1½
Silica, - - - - -	34	50	70½
Sulphuric Acid, - - -	4	2½	1½
Phosphoric Acid, - - -	3½	9	3
Chlorine, - - - - -	1	1	½
	100	100	100

This gives the amount of the different earthy substances drawn from the soil, and from a careful perusal of the table, we come to the conclusion that a soil which will not grow wheat, may yet yield a good return of Oat, again it might greatly injure the soil to take two crops of the same kind off it in succession, thus giving one strong reason for a proper rotation of cropping. The inorganic food carried

off by one crop, may be restored by others before the time arrives for the first crop to be grown.

One soil may be favorable to the growth of one part of a plant, and most unfavorable for another part, the straw of corn may flourish and not the ear, the *straw* contains only a small portion of lime, magnesia and phosphoric acid, whilst the *grain* requires a large amount of these substances. The grain of wheat contains 19 per cent of potash, in the straw, only $\frac{1}{2}$ per cent is found.

It will thus be readily seen, that some soils will grow good straw, with deficient ears, and others good ears, but poor straw. .

I will now make you acquainted with the names of the substances found in the ash of plants. They are, Potash, Soda, Lime, Magnesia, Silica, Alumina, Oxide of Iron, Oxide of Manganese, Sulphur, Phosphorus, and Chlorine.

Potash.—is known to us in the pearl ash of commerce. It is composed of carbonic acid and potash (carbonate of potash). The acids form compounds with potash termed salts, one of which the nitrate of potash, (salt-petre) is one with which all are familiar, and it has been observed that where it exists in our Indian soils, plants thrive with great vigour.

Soda.—Can be procured from the carbonate of soda, by boiling with quicklime, the carbonic acid unites with the lime, and the Soda remains in solution.

Lime.—is familiar to all in the form of limestone, (carbonate of lime) and quick lime or burnt lime, the carbonic acid being driven off in the process of burning.

Magnesia.—Is the calcined magnesia of the shops. A salt of magnesia very common is the sulphate (Epsom Salts).

Oxide of Iron.—This is the common rust of iron—it exists in the soil in two states, the protoxide, (of a reddish color) and the peroxide which contains the larger amount of oxygen, hence their names oxides.

Oxide of Manganese.—It is a brownish colored powder, and exists in soils and plants in very small quantity.

Silica.—Is a very important ingredient in our soils and plants. It is the presence of this substance which gives stability to our plants, those containing a large amount of it having a peculiar gritty feel. It is the substance of flints, quartz, and all siliceous sandstones.

Alumina.—Is one of the constituents of alum, from which we can

readily procure it by dissolving a little in water, and adding liquid Ammonia (Hartshorn) to the solution—the alumina separates in beautiful flakes. This is the substance that gives the peculiar tenacity to those clays used in the manufacture of porcelain, bricks, tiles &c. it exists also in considerable quantity in pipe clay.

Sulphur.—This is well known. It exists in the ash of plants in combination with Oxygen forming Sulphuric Acid, (Vitriol) which in its turn unites with other substances forming what is termed *Sulphates*. Thus we have *Sulphate of Potash*, *Sulphate of Soda*, (Glanber's Salt) *Sulphate of Lime*, (Gypsum, or Alabaster) *Sulphate of Magnesia*, (Epsom Salts) *Sulphate of Alumina and Potash* (Alum) *Sulphate of Iron*, (green Vitriol).

Phosphorus is a soft pale-yellowish substance, takes fire readily in the air, and gives off when burning dense white fumes of *Phosphoric acid* which forms *phosphates* with potash, soda, lime and magnesia. A large amount of *phosphate of lime* is obtained from the burning of bones. Phosphate of magnesia is contained in the ash of wheat and other grain.

Chlorine is light-yellowish green colored gas, of a most disagreeable, suffocating odour, and gives the peculiar smell to chloride of lime. By pouring a little muriatic acid (Spirit of Salt) on the oxide of manganese, chlorine gas will be given off.

It forms compounds with potash, soda, lime and magnesia. The useful condiment, salt, is made up of this disagreeable smelling gas, and a metal, (Sodium) the base of Soda. It is in combination with some or other of these substances that it enters into the composition of plants.

The inorganic food of plants taken from the soil, may appear trifling in an analysis, but when we consider the large amount taken from several biggaus of land, it is rather startling. The removal of such large quantities of inorganic matter, must in time exhaust the soil, and render it unfit for the production of crops, unless these substances are supplied in the form of manure. I may be told, respecting Indian soils, that they are very fertile, and there is no occasion for manure, or extra cultivation; that rice, indigo, wheat, &c. can be grown year after year in the same field, without the slightest deterioration of quantity produced. Let the holders of such an opinion beware. The same was said of thousands of English acres many years ago, which at the time were thought by the farmers to be inexhaustible, but by a most injudicious system of cropping, are now rendered comparatively

useless. We find the same illustrations of this slow but sure decay in the agricultural histories of nearly every country. What a fearful example we have at present in the broad lands of some of the American slave states, once possessing a degree of fertility than which nothing could surpass, now lie bare and unproductive. These lands by proper culture, may *yet* yield good returns, but the consumption of time, labor, and money necessary for such an undertaking will be something enormous.

So much do the settlers in the new colony of Australia appreciate the idea of preserving their immense tracts of arable land from becoming exhausted by the extraction of tons of these inorganic substances, that it has been proposed to introduce a clause into the new Constitution Act, to insist upon farmers adopting a proper rotation of crops.

I have thus given you a slight insight into the nature and composition of plants, let me crave your attention for a few moments to the consideration of the soil or soils upon which those plants grow.

THE SOIL.

All soils, like all animals and plants, consist of two principal portions, an organic and an inorganic part. The organic portion is made up of the black substance carbon, and those three gases, Hydrogen, Nitrogen and Oxygen, whose properties I described to you before, and therefore it is unnecessary now to dwell on them. The organic portion of soils is derived principally from the remains of decayed animal and vegetable substances, and its amount differs greatly in different soils.

In peaty, boggy soils it forms from 50 to 70 per cent of the whole weight, and in some rich, highly cultivated tracts, so much as 25 per cent has been formed. But in good arable soils, the amount is even much smaller. Some crops, as Oats, will grow upon land containing but a small amount of organic matter, whilst others, as Wheat, Barley, Indigo and Rice require a large amount of it to be present.

The Inorganic matter, consists of two parts, the *soluble*, or *saline* portion; and the *insoluble*, or *earthy* matter. The soluble portion is made up of those salts of potash, soda, lime and magnesia, of which I spoke when treating of plants. In many countries the presence of these salts in the soil is very apparent. Many of you no doubt have noticed the saline incrustation upon some of our Indian soils in certain

seasons. This takes place more especially where the subsoil is sandy and porous. During the hot weather the evaporation on the surface causes the water underneath to ascend, this water contains a large amount of salts dissolved in it, and which it deposits upon the surface, when it rises into the atmosphere in vapor. The longer the dry weather continues, the greater will be the amount of salts deposited.

The insoluble or earthy portion forms about 95 per cent of their whole weight, it consists chiefly of *Silica* in the form of sand, *Alumina* in that of clay, and of *lime*, as carbonate of lime and soils are termed sandy, clay, or marly according to the amounts of these substances found in them. We also find the oxide of iron, which forms from 2 to 3 per cent in sandy soils and much more in reddish soils, the latter are considered as peculiarly adapted for the growth of Tobacco, while soils containing iron in the form of protoxide or first oxide grow the best cotton crops.

Soils are formed from the disintegration or crumbling down of the rocks upon which they rest, and assume different colours according to the composition of such rock—Thus, in chalk districts the soil is white. In the coal fields, it is blackish, in the central part of England, the prevailing color of the soils is dark red, and in other districts we find it varying, caused by the admixture of yellow, white, and brown sands and clays. There is a class of soils, largely distributed over the surface of our globe, very fertile in their character, but differing most materially from the rocks upon which they rest. These are termed *alluvial* soils, and consist of transported materials. We have an example in the greater part of the Indian soils, more especially that of Bengal, which, upon examination, gives undoubted proofs of having been carried down from the Hills upon the bosom of the mighty Ganges, during the seasons of the overflowing of its banks. On the subsiding of the water, a gradual deposition of matter takes place, and this process going on for hundreds and thousands of years, has been the means whereby those vast plains have been formed.

In considering the formation of soils, their diversity in connection with the rocks upon which they rest, and the relative position of these different rocks to each other, we must not forget to mention the close connection that the science of Geology bears to that of practical Agriculture.

From a study of this attractive branch of knowledge, we become acquainted with the different rocks, the time of their formation, the means whereby they have been formed, their uses ; and the nature of the materials produced by their decay. In consequence, the student of agriculture, who has paid attention to geological subjects, can, with precision, choose a particular locality for his operations, the soil of which he knows to contain all the ingredients, necessary to the growth of the plants which he wishes to cultivate.

This part of our subject leads us directly to the consideration of the chéimical constituents of which soils are composed. We have seen that a certain number of substances are found in the ash of plants, the conclusion to be arrived at is obvious, that if plants contain these substances, they must extract them from the soil ; such we find to be the case. A good deal of time and attention has been given to the analyses of Soils by most of our eminent chemists, amongst others Liebig, Sprengel and Professor Way. The following is the result of analyses of three soils by Sprengel of Prussia. No. I, is a fertile soil, allowed, and had been formerly overflowed by the sea. It is from East Firesland.—No. 2, is also a fertile soil, it is taken from the neighbourhood of Göttingen. No. 3, is a barren soil, from near Luneburg. The amount of soluble salts was in No. I, 18, No. II. 3, and No. III. 1, in 1,000 parts. *See Table.*

	No. I.	No. II.	No. III.
Organic Matter, - - - - -	97	50	40
Silica, - - - - -	618	833	778
Alumina, - - - - -	57	51	91
Lime, - - - - -	59	18	4
Magnesia, - - - - -	8½	8	1
Oxide of Iron, - - - - -	61	30	81
Oxide of Manganese, - - - - -	1	3	½
Potash, - - - - -	2	trace	trace
Soda, - - - - -	4	do.	do.
Chlorine, - - - - -	2	do.	do.
Sulphuric Acid, - - - - -	2	¾	do.
Phosphoric Acid, - - - - -	4½	1¾	do.
Carbonic Acid, - - - - -	40	4½	do.
Loss, - - - - -	14	—	4½
	1,000	1,000	1,000

The table illustrates that all these inorganic ingredients must be present to render the soil fertile, and the deficiency of any one of them as in No. III. makes a vast difference in the agricultural value.

ANALYSES OF INDIAN SOILS.

The following table exhibits the analyses of some American and Indian Cotton soils by H. Pildington, Esq. extracted from the Transactions of the Agricultural and Horticultural Society of India.

	AMERICAN.			INDIAN.		
	Georgia Sea Island.	Upland Georgia.	Supposed to be Sea Island.	Bundlekund	Coimbatore.	Bourbon Seed Cotton. T.
Vegetable Matter, - - -	3.20	4.65	5.00	2.60	2.30	0.15
Saline and extractive do. -	0.20	0.10	0.60	0.33	trace	0.20
Protoxide of Iron, - - -	1.00	1.25	1.30	—	4.00	—
Peroxide, - - - - -	—	—	—	7.75	—	2.88
Carbonate of lime, - - -	2.75	2.90	4.00	11.90	7.50	19.50
Magnesia, - - - - -	—	—	—	trace	trace	0.15
Alumina, - - - - -	0.20	1.00	0.63	3.00	2.80	2.00
Silica, - - - - -	92.00	89.35	88.02	74.00	82.80	74.00
Water and Loss, - - -	0.65	0.75	0.45	1.02	0.60	1.12
	100.00	100.00	100.00	100.00	100.00	100.00

The consideration of the composition of soils shows how important it is to have correct analysis and thus point out at once their capabilities, and the proper crops to grow upon them, instead of taking a number of years to find out the soil which is peculiarly fitted for the growth of a particular crop.—There can be little use in planting a crop, when some of the ingredients necessary to its growth are deficient in the soil, previously ascertained by a correct chemical analysis. These deficient materials are supplied in the form of manures to which I will now direct your attention.

MANURES. The practice of the application of manures has been from the earliest ages to the present, regarded as most necessary to enhance the fertility of the soil.

There is a natural division of manures into *vegetable*, *animal* and *mineral*. We will commence with vegetable. The purposes these serve to the soil are numerous, they supply organic food to the roots of plants; open the pores of the soil, render it lighter, and yield those inorganic matters which the plant seeks for in the soil.

Green manuring is the term applied to the practice of ploughing into the ground several of our cultivated plants, in the green state, such as turnips, peas, lucerne, &c. where, by their decay they afford every assistance to the crop.

The addition of sea-weed as a manure is very common in those districts of the British Isles bordering the coast. There are several vegetable substances which supplied to the soil in the dried state are most beneficial; for instance, *Rape seed*, *Flax seed*, and different kinds of *oil cake*, the refuse of the process of malting, *malt dust*. *Charcoal* also, as I explained before, has a useful property of absorbing certain noxious vapors from the air, and thus forms a valuable adjunct to the manure heap.

The refuse from the manufacture of indigo, tea, sugar, cotton and many other articles, would if applied to the soil in which the indigo and cotton plants, sugar cane, and tea tree had been grown, materially increase its fertility, although the ground may appear virgin in its quality, yet, you will all understand from what I have previously stated that there is a certain deteriorating process going on, which if not checked by the proper addition of manures, change of crop, &c. will eventually result in the abandonment of the soil to hopeless infertility.

Animal manures. Those in most common use are flesh, blood, bones, horn, hair, fish, and the droppings of birds in the form of Guano. Animal matters act more powerfully than vegetable, their decay is rapid, active and immediate, but their effects are temporary and not so substantial as that of vegetable or mineral.

It is in consequence of the large amount of Nitrogen which animal substances contain in the moist state, that their decomposition is so rapid. The Nitrogen, during decay assumes the form of Ammonia, a very volatile gas, known to you as Hartshorn, and as this is a very active agent in promoting vegetation, great attention should be given to its preservation.

I might give you some analyses of manures, but I find my time is drawing to a close and I must therefore defer that for the present.

Mineral manures are, the salts, nitrate of potash, (Saltpetre) which, with Nitrate of Soda, gives a beautiful healthy green appearance to young plants—also the *sulphate of Soda*, or Glauber's salt, *sulphate of Magnesia* (Eps. salts.) *Sulphate of lime*, (Gypsum) is applied in Germany to grass lands with success, and this manure is in the United States applied to nearly *every* crop. Common Salt has an undoubted beneficial effect upon those soils, situated so far inland as not to be acted on by the spray of the ocean &c.

The ashes of sea-weed, (kelp), and those of wood are most valuable, and are extensively used as fertilizers.

A very important mineral manure and one which *all* farmers use is Lime; it is applied in two states, as a carbonate, (marls, chalk,) called *mild* lime—and also as *quicklime* or burnt lime, its action on the soil is both *chemical* and *mechanical*. In its chemical effects, it decomposes noxious substances, forms new compounds and enters into combination with many of the acids.

Its mechanical virtue consists in the minute state of division in which its particles exist as a carbonate, and thus affords direct nourishment to plants, for by a reference to the analyses of different soils, we find that its presence is imperative in the formation of a fertile soil.

I have thus gentlemen, brought before your notice in a very cursory manner, a few of the subjects treated of by the science of Agricultural Chemistry. We have examined the characters of the organic and inorganic parts of plants, and the different compounds formed from the union of a few simple bodies, we have seen how food is supplied to plants, the medium through which such food is furnished, and some of the means whereby the withdrawal of this food may be renewed.

The study of Agriculture, expands the mind, imparts a healthy tone to society, elevates the moral feelings, and teaches us to look with admiration, and awe upon the magnificent designs of an All-Wise Creator, for the production of the necessaries and luxuries of life. Taking this into consideration, what could be more judicious, whilst the youths of this country, are learning at the Colleges, and Schools throughout the land the means whereby to raise themselves in the great social scale of civilization; than cause them to imbibe, in connection with their other studies, the most improved principles and modes for the cultivation of the soil. The attractions held out to

the inquiring mind, of the Science of Chemical Agriculture, are innumerable; and it is lamentable to think how few evince the slightest concern for a subject, the paramount importance of which must be patent to all. We see plants growing in the soil, thriving luxuriantly in different situations, and in different degrees of temperature; how very few ask themselves, or even think, how do these plants grow, by what means are they supplied with nourishment to cause them to expand their proportions? why is that they require, water, air and the soil? these inquiries can be all answered by Agricultural Science.

We find soils differing in their capabilities, tenacity, powers of absorbing and retaining moisture; Agricultural Chemistry points out the reasons, and the best method of treating such, to enable us to produce crops off them to the greatest advantage.

It was by questions as simple as these I have mentioned, that one of the greatest philosophers the world has produced created an era in the history of Natural Sciences, by his stupendous discovery of the laws of gravitation; and Newton, after all the lustre he shed around him, is said to have exclaimed shortly before his death. "I know not" said he "what I may appear to the world, but to myself, I seem to have been only like a boy playing on the sea shore, and diverting myself, in now and then finding a smoother pebble, or a prettier shell than ordinary, whilst the great ocean of truth lay undiscovered before me."

The Science of Agricultural Chemistry presents such a vast field for enquiry, that I regret being obliged to leave unnoticed very many interesting facts and theories; however, I have endeavored to compress within the limits of my Lecture as much important and useful information as was possible.

Gentlemen, in concluding, I must tender you my sincere thanks for your patient attention to a necessarily dry subject, and I hope that any stray seeds of knowledge that I have dropped may yet yield a fruitful return.

Rules of the Bethune Society.

- I. All educated persons interested in the objects of the Society are eligible as Members.
- II. Candidates for election as Members shall be proposed and seconded at one Meeting, and ballotted for at the succeeding Meeting; a simple majority being sufficient to secure the election of the candidate.
- III. The Society shall hold ordinary Monthly Meetings on the Second Thursday of each month from October to March at 7 p. m. and from April to September at 8 p. m. and an Annual General Meeting in the month of January.
- IV. The business of the ordinary Monthly Meeting shall be conducted in the following order:—
 1. Reading of the proceedings of the last Meeting for confirmation.
 2. Election of Members.
 3. General Proceedings.
 4. Delivery of Discourses.
 5. Remarks on the Discourses by any Member present.
- V. Discourses (written or verbal) in English, Bengali or Urdu, on literary or scientific subjects, may be delivered at the Society's Meetings, but none treating of religion or politics shall be admissible.
- VI. The Society shall have a President, a Secretary, a Collector and a Committee of Papers composed of three Members, who shall be subject to annual election.
- VII. The written Discourses after they are read, shall be the property of the Society, and the Committee of Papers may, if they think fit, cause a selection of them to be printed or published, with the concurrence of the Author.
- VIII. The Committee of Papers shall be at liberty to return any paper for the purpose of being printed in any journal, if they see sufficient cause for doing so, upon the application of the Author.
- IX. The presence of fifty persons shall be deemed sufficient and constitute a Meeting for the reading of Discourses, &c.
- X. The Members of the Society shall pay a subscription of One Rupee half-yearly in advance, to meet the expense of lighting, and of printing the Transactions and Proceedings.
- XI. No Member shall be entitled to receive copies of the Society's Transactions, who has not paid up all Subscription due by him to the Society.

THE EMPLOYMENT OF WOMEN

IN

RELIGIOUS AND CHARITABLE WORKS.

BEFORE I enter on the subject of to-night's lecture, I desire to say a word as to its character. It is absolutely necessary that I should make in it certain references to the New Testament, and to the history of the Christian Church. In doing so, I shall not, I trust, forget the 5th Rule of our Society, that the discourses here delivered must treat on such subjects as may be fairly included within the range of general literature and science. This Rule was interpreted by the discussion which took place on the 11th August, 1859, when it was substituted for a former Rule, which had forbidden all reference of any kind to religion and politics. From the report of that discussion I have gathered that though controversial theology was excluded from the subjects here considered, the friends of the Society were anxious that it should not be stigmatized as an atheistic body, an imputation which seems, justly or unjustly, to have been formerly cast upon it, and to have prevented many men of high intelligence from joining its ranks. Indeed the alteration of the rule prohibiting any allusion to religion was made by Dr. Duff a condition of accepting the Presidency. Hence I consider that my subject, though it necessitates references to religion, is a lawful one, provided it is not treated in a controversial spirit, or in a

manner calculated to give offence to my audience. Indeed without the warning of this regulation, my own feelings of right and wrong, and that courtesy which no variety of religious convictions should destroy, would prevent me from coming among you with the intention of turning a friendly meeting into a scene of angry controversy, or of giving deliberate pain to those who have invited me to address them. I am far too sensible of the advantage of finding any patch of common ground on which Hindus and Christians can meet in harmony and good will, to reduce it, scanty as it undoubtedly is, by ill-timed and unlooked-for pugnacity. Therefore in treating of the subject before us, my religious references will be historical, not controversial. It cannot be denied that the existence of Christianity and the Church is a fact, and a very great fact, in the world's history, and has led to results of incalculable importance. I am desirous to set before you one of these results as a matter of moral interest, leaving you to draw from it your own inferences and reflections. I am encouraged to believe that such a course is neither irregular nor unacceptable, since both the previous lectures which I have had the honour of delivering here, have been of the same character. When five years ago I tried to give a sketch of the University at which I was educated, the part which the Christian Church had taken in its foundation and development was brought prominently forward. When two years ago I spoke here of the popular odium by which the greatest and best man of antiquity was crushed, the insufficiency of philosophy to effect the moral reformation of the people was distinctly pointed out. Indeed it is only through the kind confidence which trusts me with some discretion on these occasions that I could feel it consistent with the business of my life to take an active part in your proceedings.

For I have been called, under very solemn sanctions, to the duty of endeavouring to benefit others morally and spiritually ; and however conscious I may be of many shortcomings in my performance of this work, I must never so far forget it, as to think the mere intellectual gratification or amusement of an audience a legitimate employment of my time, even if my habitual studies lay in any direction which would make this an easy task. And then, since all my faith in moral and spiritual good is bound up with Christianity, as the divinely appointed agency for effecting it among men, any moral references which I may have to make must of necessity be Christian references, and any description which I may attempt of benevolent enterprises must be taken, as a rule, from Christian times.

With this preliminary claim of mutual confidence I will endeavour to give you, as I proposed, a short sketch of the employment of European women in charitable and religious works. From the announcement of such a subject you will perhaps have gathered the reason of my somewhat lengthy and apologetic preface, for as this employment is entirely the growth of Christianity, I cannot describe it without these references to Christian history of which I have spoken. Moreover another word of preface is necessary. Had I known when I fixed upon my subject, or before I began to collect materials for it, that our President had already given a lecture on the career of Miss Nightingale, I should have refrained from invading a province which he has so efficiently occupied. But I did not see his lecture till it was too late to alter the subject of my own, and he himself encouraged me to persevere, saying that the lessons involved in such a theme cannot be imprest too often upon the natives of India. Indeed they are essential to the natives of any country, for a

well known French proverb has commended to us the policy of "gaining the women," if we desire to accomplish any important end. Perhaps there may be this advantage in the fortuitous coincidence of our two lectures ; the series for this year will be rounded off with a certain undesigned symmetry, the first and the last of the session will have the same purpose, the first will be a particular example of the general subject considered in the last.

I said that the systematic employment of European women in good works was due to the Gospel, which first proclaimed the spiritual equality of the sexes, declaring that in the new Christian community no difference is recognized between Jew and Gentile, bondsman and freeman, male and female, Greek and Barbarian. Accordingly instances of this activity of women in works of charity are found in those earliest historical documents of our faith which have been collected into a volume, and called the New Testament. Passing over some conspicuous examples of it which occurred during the life-time of our Lord, but were too unsystematic and casual to be noticed here, I will mention a certain Phœbe, a Greek woman, whom the Apostle Paul commends as a servant of the Church which is at Cenchrea, one of the ports, you will remember, of the great city of Corinth, and who appears to have conveyed a letter from him to the Christians at Rome. Now among the earliest functionaries of the Church, we find some who were entitled *deacons*, a word meaning literally *followers*, and hence *ministers* or *servants*, and still retained to denote the lowest of the three orders of the Christian clergy. But though called merely *servants*, we are not to suppose that they were in a menial condition, their servitude was voluntary, and consisted in acts of kindness, heartily and ungrudgingly rendered. It is an instance of the simplicity and humility of the

early Christians, that the three titles now so famous, of Bishop, Priest, and Deacon, mean etymologically nothing more than *Overlooker*, *Elder*, and *Servant*. The duty of the deacons was specially to attend to the wants of the poor, and to distribute among them the alms of the congregation. And it happens that this Phœbe, though a woman, is designated by the Greek word for *deacon*, though in our English Bible when applied to her it is, as we have seen, rendered *servant*, an unfortunate variation, for as our translators have employed the word *deacon* to express the male office, they should have used it also for the corresponding female employment, at least with the proper feminine termination, *deaconess*. For we cannot doubt that the work of a woman so designated was of the same kind as that of a male deacon. Indeed the Apostle Paul, in his commendation of Phœbe to the hospitality of the Romans, describes her as having been a succourer of many and of himself also, nursing them perhaps in sickness, or comforting them in sorrow, or supplying them with food, or money in distress.

This mention of Phœbe, as a *deaconess* or female servant, with that of some other women similarly engaged, occurs in one of the earliest of the Apostle's letters. In one of the latest of them we find the number of *deaconesses* apparently increased, and their position in the Church more completely recognized. Let me quote some of the directions which he gives to his friend and disciple Timotheus, whom he had appointed to be the religious guide and governor of the Christians in the great city of Ephesus, as to his choice of persons to fill the offices of the Church. *Deacons in like manner*, he warns him, *must be grave, not double-tongued, not given to much wine, not greedy of base gains, holding the truths revealed to faith in a pure conscience; and let them also first*

be proved, then let them serve as deacons, if they be under no charge. Women in like manner, when engaged in the same office, must be grave, not slanderous, sober, faithful in all things.* Whether other passages in the New Testament refer to deaconesses is doubtful, and could not be quoted without something of critical discussion and tedious explanation. Sufficient evidence has been produced to shew that a female diaconate or ministry was recognized in the earliest times, and that the founders of the Church instituted an office, calculated to draw out at once the best parts of a woman's character, and to employ her in duties which no man can ever perform with equal tenderness, dexterity and forethought. We pass now from the record of Scripture to the notices which have descended to us along the stream of Church history. Many early Christian writers, whose names I could not enumerate without wearying you, tell us of the qualifications for the office and of its duties. The former vary with the circumstances of various times and places. The age of 40 is sometimes fixed as a limit below which a woman may not be admitted to the work. Sometimes we even read that no one may be a deaconess under 60, though this inconvenient and almost suicidal restriction probably arose from a misconception of a passage in St. Paul's writings. By the law of some parts of Christendom only widows could be appointed, while again we find a further limitation that they must have been mothers; for thus (to quote the beautiful reason given for the rule†) having learnt in training their own children to be tender and compassionate, they will be qualified to assist others both by counsel and comfort.

* 1 Tim. iii. 11. The passage is rendered more correctly than in the English Bible. For "their wives" we should undoubtedly substitute "women who are deacons" or "deaconesses." So Bishop Ellicott.

† Tertull, *De Virg. Veland.* p. 178.

The duties of deaconesses were to take part in preparing women for admission to the Christian community, and in the baptismal ceremony by which they were admitted ; to visit and attend the sick and poor, specially of their own sex ; in meetings for worship to assign to women their places ; and to visit and comfort Christians imprisoned on account of their faith, for it appears that they could gain readier access to them than was allowed to the male ministers of the Church. An example of their conspicuous devotion to their sacred calling is furnished for us by the unimpeachable authority of a writer who was not a Christian at all, but a Roman philosopher, a man of high family, great literary ability, and important political position, selected by the emperor Trajan for the government of the province of Bithynia. Pliny the younger was directed by his imperial master to send in an official report on the numbers and practices of the new sect called Christians, then just beginning to emerge from obscurity. To obey the order he found it necessary, he said, to institute a very close enquiry, and therefore to examine by torture two women who were called deaconesses ; a painful instance of the ferocity which spared neither sex nor age in the vindication of Roman power, and which in this case only resulted in the revelation of the simple virtues which adorned the persecuted sect.

As time goes on, we meet with more and more frequent notices of these female ministers, who seem to have been solemnly set apart for their work of mercy by the benediction of the Church's chief officers, conveyed by the time-honoured ceremony of laying hands upon their heads. The female diaconate was originally attached to particular churches and congregations, which had their ordained women carrying on works of charity, just as they had their presbyters and deacons. It would be

long to investigate the circumstances under which this form of women's religious service became extinct. It disappears silently from history. In the Eastern Churches we meet with rules about the ordination of deaconesses down to the end of the 7th century A. D., after which they cease. In the West the institution lasted longer, having flourished especially in Gaul. In that country we even read of a royal deaconess, in the person of a Queen of Neustria, Radegund by name, who, after passing a long period of domestic wretchedness in the house of a brutal husband, and at last seeing her only brother put to death by his order, fled in fear of her own life to the protection of the bishop of Noyon, sought from him ordination, and was distinguished for the largeness of her charities, and for forming a society in which literary pursuits were combined with devotional exercises and good works. This occurred in the sixth century; but we find some traces of the office down to the popeedom of Gregory VII. in the eleventh, when it was probably submerged under the general ascendancy of the monastic orders, both of men and women, bound by strict vows of celibacy; a system which finally triumphed under the unscrupulous administration of that imperious pontiff. We shall hear no more of parochial or congregational deaconesses till comparatively recent times.

But though the plan of binding women to self-denial and active benevolence by oaths and covenants enforced by the secular authorities was very inferior, in its moral and spiritual aspect, to the free spontaneous devotion of the primitive deaconesses, yet we are not to suppose that the principle of womanly ministration among the sick and suffering was unknown during the centuries which elapsed between the pontificate of Gregory VII. and our own day. It is superfluous to remind this audience that hermitages and conventual estab-

lishments are by no means distinctively Christian. On the contrary it is clear that they were introduced into the Church from Eastern countries and partly from India. I need not speak here of *Beyragis*, *Sannyasis*, *Jogis*, or *Fakirs*; nor stop to prove that when Christian monks and hermits peopled the Egyptian deserts, they were only handing on a tradition derived from oriental predecessors. In the earliest age of Buddhism* there was an order of female recluses, the first woman admitted to profession being Maha Prajapati, the foster mother of Gautama himself. They carried the alms bowl from door to door in the same manner as the priests, and had their own *sangha* or chapter. It seems clear that the institution of Christian nuns was copied from Buddhism or some similar original. But the great work of Christianity was to infuse into these recluse societies that spirit of active benevolence and divine charity which had already animated the deaconesses. The duties which had been performed by women attached to particular congregations were gradually transferred to the nuns, whose service was due to the whole Church. As a general rule these women were bound by the strictest vows, they pledged themselves by oath to poverty, chastity, and obedience, their perpetual celibacy was secured by terrible secular penalties. One order however was not bound by oath to this life-long service. This was that of the Beguines, or "praying women," whose name is derived from the Teutonic *beg* "to pray", but who, though they regarded prayer as their special function, appreciated the true worth of a motto, sometimes abused to irreligious purposes, *qui laborat orat*. They received young girls, chiefly orphans, to educate, they went out to nurse and console the sick, they attended deathbeds, washed and laid out the dead, pacified family disputes, and when not employed on any of these works of

* Hardy, *Eastern Monachism*, page 159.

humanity lived together, sometimes in a single house distributed into separate cells, sometimes in a number of houses collected within a common enclosure, like the clustered hermitages of the early monks, with a common chapel, hospital, and infirmary. They were in fact a female diaconate collected into one place instead of belonging to various churches, and they flourished especially in the great cities of Flanders, Northern Germany, and Flemish France, which were the nurseries of the freedom, the trade, and the industry of Europe. Though they were forbidden to marry as long as they remained members of the society, they were free to leave it at any time, and so far were an exception to the mediæval rule of religious devotion ; but still the case illustrates the principle *exceptio probat regulam*, for such was the jealousy entertained of any order not bound by perpetual vows, that the Beguine sisterhood, in spite of its piety and manifold charity, was discouraged and even persecuted during the 13th and following centuries. The Provincial Council of Mayence went so far as to style them "pestiferous," and in parts of Europe they were suppress'd, or turned into mere appendages of the great Franciscan or Dominican orders. But in Belgium they still happily survive in their original form. I have myself visited the two Beguinages at Ghent and Bruges, of which the former is the more important. It forms almost a little town, walled and moated in, with separate residences for 600 sisters, bound as of old by no vow, able to return to ordinary life whenever they please, yet apparently always adhering to their vocation, so devoted are they to the holy work of nursing the sick and suffering, whether in the hospital or in private houses in the town.

As I promised at the outset that I would enter into no controversial questions which may divide me from the majority

of my hearers, I am naturally still less disposed to discuss those which prevent unity of opinion among us Christians. Yet, still treating the events which have marked the annals of the Church merely as historical facts, I must advert for one moment to that reformation of religion in the 16th century, with which you are all well acquainted from your own knowledge of European affairs, and through which the Northern population of Europe renounced their spiritual allegiance to the Bishop of Rome. For the bearing of this great change on our present subject is important. Now while I carefully abstain from entering into any of the theological issues involved in the Reformation, I shall hardly violate our compact to keep peace with all men, if I quote the brief account of it lately given by a Roman Catholic, that the separation of the English Church from the Roman, "was undoubtedly a revolt against constituted authority, but that if ever there was a revolt justified under the circumstances it was this."* With such an explanation I am ready to agree, placing however the chief weight on the second clause, while its author would probably attach it to the first ; and I quote it because it happens exactly to suit my purpose, as stating briefly, generally, and without any reference to theology, that the main principle of Romanism is authority, of Protestantism freedom. Now as we all know that authority is often intensified into tyranny, so freedom sometimes is degraded into anarchy, or if it stops short of this, casts aside many time-honoured restraints or institutions which may appear too closely interwoven with the rival principle of authority. And though myself a faithful disciple of the English Church, I readily admit that some of the changes made at the Reformation, as in any other revolu-

* Letter in the *Guardian*, Jan'y. 24th, 1866, signed "Writer of Musings of a Vert in the Union."

tionary epoch, were changes for the worse, and that institutions were overthrown which should have been preserved and improved. Perhaps some of you have read Dean Swift's *Tale of a Tub*. It is a humorous though coarse allegory, in which our great satirist sketches the history of the Reformation. A father has three sons, Peter, Martin, and Jack, and in his will he leaves to each a new coat endowed with two supernatural properties. "With good wearing it will last its owner fresh and sound as long as he lives, and it will grow in the same proportion with the wearer's body, lengthening and widening of itself so as to be always fit.*" Peter is intended to represent the Romanists, Martin the moderate, and Jack the more violent reformers. Peter, the eldest brother, had long been in the habit of adding to the paternal coat "whatever trimmings came up in fashion," and covered it in time with an infinite quantity of lace and ribbons, fringe, embroidery, and points. For some time the younger brothers imitated him, but at last, having quarrelled with Peter, they resolved to restore their coats to the simplicity described and commended to them in their father's will.† Martin goes prudently to work, dexterously removing the gold lace and embroidery, but picking up the stitches with much caution, taking care not to tear the garment itself, so that whenever he observed the embroidery to be worked so close as not to be got away without damaging the cloth, or whenever it served to hide any flaw in the body of the coat, he concluded the wisest course was to let it remain; resolving in no case whatever that the substance of the stuff should suffer injury. But Jack, who was of a more fervid temperament, in three minutes made more despatch than Martin had done in as many hours, and in

* Page 76.

† Page 132.

stripping down a parcel of gold lace rent the main body of his coat from top to bottom; and whereas his talent was not of the happiest in taking up a stitch, he knew no better way than to darn it again with pack-thread and a skewer. The application of the story is obvious. Some of our reformers, in their haste to get rid of Roman practices which they thought inconsistent with primitive Christianity, destroyed institutions which were thoroughly in accordance with its spirit. In my opinion it is hard to justify, though possible to excuse, their treatment of the conventual establishments. Doubtless very gross abuses had multiplied in many of them, which required a ruthless excision. Doubtless too they were over-numerous, and had absorbed an undue share of the national wealth. Indeed the work of suppression did not begin in Protestant times, for Henry V, the greatest prince of that orthodox house of Lancaster, which, above all other English dynasties, was distinguished for devotion to the ancient Church, secularized a hundred priories; and even in Henry VIII's reign the first visitation of religious houses took place long before he had any thought of breaking with Rome, while Wolsey, the Cardinal Archbishop and expectant Pope, was at the head of his administration. Their reform and retrenchment and adaptation to the changed wants of modern times had long been necessary, but their entire destruction, including the demolition of their glorious buildings, and the suppression of their almost boundless charities, was an act of folly and rapacity; and the traveller who gazes upon the exquisite ruins of Melrose or Tintern may well marvel that the wisdom of statesmen and churchmen could desire no better end for institutions, intended for the service of God and the exercise of self-sacrificing piety, than that they should furnish subjects for photographs and sketch books, and point the picturesque descriptions of Wordsworth and Walter Scott.

But though by the overthrow of nunneries, which were included in the supprest convents, the Reformation extinguished in one direction the flame of female beneficence, it kindled it anew in another. The abolition of the celibacy of the clergy gradually introduced a new race of wives and daughters, especially bound to the duty of doing good to the poor. Some time must have elapsed before their influence was felt, but no one acquainted with the present constitution of our parishes can doubt its immense importance. Not only are the gentleness and the easily-roused compassion of a woman needed to alleviate the sorrows and hardships of a working life, but the sympathy which one woman feels for another serves as a frequent refuge in sorrow, and protection against sin. From whom will a woman, especially of imperfect education, seek for advice in a thousand petty troubles, or help in the many difficulties and dangers which touch almost every household, except from a woman? To no one else will a mother speak of her anxiety for her scapegrace son, or frivolous daughter, or a wife confide the asperities and disagreements which may mar even the happiness of her married life. The work of the wives of Protestant Clergymen is especially a ministry of consolation and encouragement to their own sex, as well as of material help and charity to both sexes; and no one can deny that it is as a general rule most nobly and unselfishly performed. Moreover, it is important to note that the Reformation produced great effects, not only on the Churches which accepted its principles, but on the Church which repudiated them. The Protestants had lost the aid of female devotion by the abolition of nunneries, but they had gained the services of the wives and daughters of a reformed priesthood. The Roman Catholics, still retaining the celibacy of the clergy, could not have the latter, but tried to make

up for it by an enormous increase of the former. In the 16th and 17th centuries there arose a large number of female educational orders, Ursulines, Augustinians, Daughters of the Holy Sacrament at the famous abbey of Port Royal near Paris, who devoted themselves to the training of young girls in secular knowledge, in the fear of God, in various trades and industrial occupations. The most famous of all the post-reformation orders which arose in the Roman Church was that of the Sisters of Charity, "servants," as they delighted to call themselves, "of the sick poor." In their number were included several ladies of the highest rank, who formed themselves into a society under the guidance of Vincent de Paul. These devoted women took charge of most of the hospitals in France, followed the army to tend the sick and wounded soldiers, and penetrated even as far as Poland, where their especial work was first to nurse the victims of the plague, and then to superintend an asylum for their orphans. I will not trace any further examples of female self-devotion in the Church of Rome, as the time which remains is almost too short to enable me to speak properly of the revival of deaconesses and charitable sisterhoods in the reformed section of Christendom.

At a very early period in the history of Protestantism attempts were made to restore the primitive type of the deaconess, by attaching women to particular congregations for the performance of works of charity, a system more in accordance with scriptural precedent than the Roman plan of gathering them into convents. We do not find however that these attempts were very successful. We are told that in the church of Amsterdam, an old widow was chosen as a deaconess, and usually "sat in a convenient place in the congregation, with a little birchen rod in her hand, wherewith she kept little

children in great awe from disturbing the congregation.”* We are glad to learn that besides this duty, which can hardly be called a religious one, she visited the sick and weak, especially women, and when she found any very poor in the parish, gathered relief for them of those who were able to give it, and so was revered, “as a mother in Israel.” But we do not hear that this Dutch deaconess had any successors, and for a long time the desire to weave the diaconal functions of women into the organisation of the Reformed Church seems to have been suspended. Symptoms of its revival however were manifested in England at the end of the last century : a Strangers’ Friend Society was founded, and it became more or less common for a clergyman to place the poorer districts of his parish under the charge of female visitors. In 1815 Southey went to see the Beguines of Ghent, and afterwards published a strong commendation of their work, as “reasonable and useful, as well as humane and religious.” Arnold too, in a celebrated preface to one of his volumes of sermons, plainly stated his belief that in tearing off the ornaments of our father’s cloak, we had rent away some of its texture also. Among the good institutions and practices which it would be most desirable to restore, he mentions “religious orders, especially of women, of different kinds and under different rules, delivered only from the snare and sin of perpetual vows.”† But the first systematic effort to revive such orders was due only indirectly to England. Some of you may have heard of Mrs. Fry, a quaker lady of a large-hearted benevolence, who devoted her life to the work of reforming through Christian influence the prisoners in the English jails. She was visited, and her spirit was caught by Dr. Fliedner, the

* Young, *Chronicles of the Pilgrim Fathers*, quoted by Ludlow, *Women’s work in the Church*, p. 199

† Arnold—*Christian life, its course, Hindrances and Helps*, p. VI.

pastor of Kaiserswerth, a small town in the least beautiful part of Germany, in a region as flat as Bengal, where the Rhine flows towards the sea through level corn fields and formal rows of poplars, as the Ganges between its sand banks and peepuls. Here Fliedner, returning from England with a strong desire to introduce among his own people a work like Mrs. Fry's, formed in the year 1833 the nucleus of a deaconess-institution in a small garden house belonging to his parsonage, since developed into a vast assemblage of buildings, "embracing," says an eye-witness, "a hospital, a penitentiary, an orphan house, an infant school, a training school for mistresses, an asylum for the insane, and a home for aged deaconesses, and presenting a remarkable scene of Christian love, cheerfulness, simplicity, courtesy, wisdom, and work."† So rapid has been the success of the scheme, so eager the response to 'the demand for women's service, that deaconesses from the central institution at Kaiserswerth are now almost literally scattered over the world; for in 1861. they were found not only in large numbers throughout Germany, but at Constantinople, Bucharest, Smyrna, Jerusalem, Alexandria, and Pittsburg in Pennsylvania. In that year a Report of their operations was published, having for its frontispiece Fliedner's old summer house and the present great hospital side by side, with a motto from the Gospel: *The kingdom of heaven is like to a grain of mustard seed, which a man took and sowed in his field, which indeed is the least of all seeds, but when it is grown it is the greatest among herbs, and becometh a tree, so that the birds of the air come and lodge in the branches thereof.* But we have not yet stated nearly all the results of Fliedner's experiment. Beside the institutions which are directly affiliated to Kaiserswerth, other central homes of deaconesses have

† Howson, *Deaconesses*, p. 71.

arisen in different countries and different reformed Churches. At the half French and half German city of Strasburg is another great establishment of the kind, numbering in 1862 eighty sisters, generally belonging to a higher rank in life than those who are attached to Kaiserswerth, and performing various works of teaching, nursing, and comforting, in a hospital, a penitentiary, a home for aged women, a school for female servants, and a reformatory for women who have been in prison. From Strasburg the sisters visit other great cities in the neighbourhood, and place themselves, just like the primitive deaconesses of Scripture, in immediate subordination to the pastors of the different congregations. Here is a sketch of their operations at Mulhausen, a great manufacturing town in Alsace. Their home is a central building, where they have prayers morning and evening, and meet at noon for dinner and a short rest. All the rest of the day they are at work in their several quarters. The town is divided into five districts. In each of these a deaconess has a couple of rooms, where she keeps a small collection of medicines, with linen and flannel, and whatever else is needed by the sick and suffering poor. Here also is a kitchen, where her servant prepares soup for the convalescent. Here too she meets the physician to receive instructions regarding her patients. She often passes the night by the bedside of those who are dangerously ill, and when she has any leisure, she seeks out and endeavours to reclaim the degraded of her own sex who reside in her district. Another central home of ministering women is at Riehen in Switzerland, on a well-wooded eminence, crowned by a picturesque church, and commanding a glorious view of the Rhine, which in its upper course flows through a country no less beautiful than the region from which it enters the sea is flat and monotonous. The sisters of Riehen, whose work does

not differ from that carried on at Kaiserswerth and Strasburg, are admitted to their functions by a solemn ceremony. After two years' probation they come into the church, and there are asked to make three promises, of *obedience, willingness, and faithfulness*; not as monastic vows, but in that spirit of love and devotion which ought to animate all who undertake the duties of charitable service. When the presiding clergyman has mentioned to them what the promises are, he says: "If ye are ready to fulfil this promise with a cheerful heart, looking unto Him who will make His strength manifest in your weakness, then answer me "Yes" in the presence of these assembled witnesses, and reach to me here each of you the hand in token of your promise." The candidates do so, and then the minister again addresses them. "The merciful and ever-present One, in whose Name we are assembled, hath heard your promise. May He give you steadfastness. In pursuance of the pledge which ye have given, I here pronounce you deaconesses, received into the sisterhood of our house, and I invite you, kneeling down in the Lord's Name, to receive a blessing by my hand, as of an ordained minister of the Evangelical Church." The blessing is then given in words taken from the New Testament, and the probationers become deaconesses, and go forth to their holy work, as they have promised, in the spirit of obedience, willingness, and faithfulness.

I must not continue the catalogue of these noble institutions. The time would fail me were I to tell of homes for sisters and deaconesses, founded by reformed churches at Paris, at St. Loup in Switzerland, at Dresden, at Berlin, at Amsterdam, at Stockholm, and now in many places in England. In London two such institutions demand special notice, both sanctioned and encouraged by the Bishop of the Diocese, the one devoted exclusively to the training of nurses, the other including agencies for visiting the poor from house to

house, and educating girls of the lower middle class. One of the last newspapers which I received from home described the ceremony of laying the first stone of a home for Sisters of Mercy in the city of Oxford, for which a lakh of rupees has been subscribed, and a large number of pious women have offered their services. These are examples only of a very general movement; and it is needless for me to tell you, for that was done in the first lecture of the present course, that the band of female nurses who attended our army in the Crimea was under the general control of Miss Nightingale, who had herself caught the inspiration from Kaiserswerth. Thus Germany returned to England, in the person of Florence Nightingale, the benefit which she had received from England through the example of Elizabeth Fry. And this reminds me that if we turn from the Western to the Eastern branches of the Universal Church, from those societies which have sprang from Latin, to those which trace their origin to Greek Christianity, we find that in the great empire of Russia the same spirit of benevolence is at work, that Russian volunteer nurses also attended Russian soldiers in the siege of Sebastopol, and that one of the princesses of the imperial family has lately founded a home for a sisterhood in the poorest quarter of St. Petersburg, in order that the destitute, the poor, and the sick may be the family of the sisters.*

I have heard it said that we English in India, perhaps because the heat makes us listless and lazy, are always twenty years behind our countrymen at home in carrying out any good or useful work. Hence perhaps it is premature to speak of deaconesses amongst us here. Yet there are undoubtedly symptoms that the throbs of the distant movement are heard

* Howson, page 253.

even in this country. Roman Catholic sisterhoods have of course long existed here as elsewhere, though their work in India is, I believe, chiefly educational. We of the reformed communions have begun to support a few nurses and Bible women. Zenana visitors are akin to deaconesses, and I trust that Christian India will not long be behind Europe in organizing the surest remedy for many evils which ought to excite among us deep feelings of grief and shame.

My friends, I have ventured to bring this subject before you with a special purpose. No doubt there are many lessons to be derived from it. A description of any work that is pure, self-denying, unselfish, is good for us who are living in the midst of material interests, and hard mechanical occupations. The contemplation of the results of Christianity must always furnish matter for serious reflection to a thoughtful man. But it was not for these reasons that I resolved to write for you this lecture. My motive had a more direct reference to yourselves. We hear a great deal now-a-days about the education of Hindu women, and we rejoice to hear it. A Bengali gentleman, whose acquaintance I had the pleasure of making some years ago, delivered in 1863 an interesting lecture before this Society on Female Education in Bengal. With the general tone and conclusions of that lecture I heartily agree, and I quoted it more than once in a Charge which I delivered to the clergy of my province in the same year. But the sole object of the lecturer was to enforce on his hearers the duty of imparting *knowledge* to their wives and daughters, to remind them that a "brilliant condition of female *intellectualism* co-existed with the ancient Hindu civilization ;" to assure them that "the women of Bengal are quite capable of mounting the highest platform of a *literary and scientific* education ;" and to enforce the importance of giving "to in-

telligent men *intelligent* wives." So again, to turn to a lighter example of the same craving for the improvement of women, only a few weeks ago I heard an essay read on the subject by a student of the Cathedral Mission College, in which he repeated two or three times over the exhortation, "Oye Hindus, educate your females." I may be allowed to utter a passing protest against the practice of applying to women the odious appellation of *females*; but, not to dwell on this incidental objection, I observe that both in this essay and in the weightier work of Kumar Harendra Krishna, the point aimed at is their *mental* culture, their *intellectual* improvement. Now I am certainly the last person to undervalue intellectual education. A great part of my life has been to a considerable extent devoted to it. It is in a certain sense a necessary preliminary or accompaniment to moral improvement. God is the Creator of our minds; and to fit them for wide usefulness is in plain accordance with His will. In the case of Hindu women, if they are at present utterly without mental culture, nothing can be done to make them better, till this want is in some degree supplied. But I am sure that the training of the intellect is a matter of vastly inferior consequence to the training of the heart. And I think further that in this busy nineteenth century, and especially in this country of India, where the past, the present, and the future, Sanskrit lore and English science, the legends of the Rishis, the institutions of Menu, the latest reports of the Sanitary Commission, the Differential Calculus, and the last sensational novel of Miss Braddon or Wilkie Collins, are all seething together as in a huge cauldron of which no man can predict the outcome, there is a great danger lest the acquisition of knowledge and intellectual power should obtain an exclusive regard as the *ne plus ultra* of human culture. I am sometimes sick of hearing about telegraphs and railways, as if these

could regenerate India and mankind. Doubtless they furnish an element in such regeneration, and the genius which discovered them, like other good things, came from God. But woe to that nation and that individual who believes that material and intellectual progress is the end of human aspirations. We should be glad to hear a little less about these things, and to observe a little more thought given to truth and righteousness, gentleness and humanity, purity and self-sacrifice. Especially in this matter of female education it is important to press the moral as well as the intellectual side of a woman's work. For indeed this constitutes her particular province; her great and characteristic victories have been won not by the head but by the heart, not in the domain of logic and mental development, but of sympathy and tenderness and unselfish devotion. I am quite aware that at present the constitution of native society is opposed to female activity. It was not always so, and there is nothing in the nature of Hindu women, any more than of European, which should make it so. The chief masters of imagination delight to pourtray the perfection to which the female character may attain. The founder of Western literature nowhere rises to a higher strain than in describing the wifely love of Andromache. The greatest Attic poet has drawn no more beautiful sketch than the heroic devotion paid by Antigone to her father's age and her brother's memory. The greatest Italian poet thinks no one but Beatrice worthy to conduct him through the glories of Paradise. The greatest English poet seems never weary of contrasting the selfish caprices of men with the nobleness of women, the boyish recklessness of Romeo with the patient strength of Juliet, the childish vanity of Lear with the almost angelic steadfastness of Cordelia, the perverse jealousy of Laertes with the endurance of Hermione, the cowardice of Claudio with the victorious

purity of Isabella ; while Othello's whole story is contained in the last exclamation of Emelia :

O murderous coxcomb ! what should such a fool
Do with so good a wife ?*

The imagination of Shakespeare, of Dante, of Sophocles, of Homer, has only idealized the qualities which adorn women in actual life : it merely represents in the brilliant colouring of poetry what they have been made by religious influences in the plain prose of practice, what they often are in Europe, what they may be in India. To expect indeed that in any reasonable time we shall see a body of Hindu deaconesses or district visitors passing from house to house in the lanes and bazaars of Calcutta or Benares, to nurse the sick, and teach the young, and comfort the afflicted, would be, I fear, a Utopian dream. And we must not overlook one great difference between the circumstances of India and Europe : in India every woman becomes a wife at an early age, and so is devoted to those domestic duties, which must everywhere take precedence of all such external and self-imposed work as I have been describing : in Europe and especially in England this is impossible for several reasons, of which perhaps the most obvious is the wholesale emigration of men to the colonies and foreign dependencies of the empire, or to the United States.† We all agree that with marriage and family-life begins the great social chain which binds a nation together, that the wife is the centre of the domestic circle, and that the immense majority of women are and ought to be employed in the noble duties which secure the happiness of the household. Now we in Europe have a minority who cannot be so occupied ; but in truth so have you, though one of less extent and importance, in India. It is not my intention at the end

* Othello, Act V. Scene 2. Compare Ruskin, *Sesame and Lilies*, page 126.

† *Essays on Woman's Work*, by Bossio Rayner Parkes, page 38.

of a lecture already too long to enter into the vexed question of Hindu widowhood, and indeed it seems to me that the opinions of many thoughtful Europeans and educated natives of this country on this subject are at least approximating. Certainly many of my own countrymen feel sympathy and reverence for the principle that a woman should love her husband and devote herself to him not only in this world but after he has quitted it, following him faithfully in thought and affection to that unseen region into which he has preceded her, and declaring that death itself cannot annul the sanctity of the marriage tie. But we hold, and so I believe do many of you, that such a view is not natural to one who, having married in early childhood, has scarcely known and never lived with the husband for whom she is required to mourn during the long years of womanhood and old age, and that it ought not to be imposed on any one as an obligation, but rather in accordance with that law of liberty which is the basis of all true morality, that it should be left as a voluntary tribute of love and reverence to a dear memory, no legal prohibition fettering those who think that by a second marriage they can pass through life more safely, or better fulfil its duties. In any case we all agree that the practice of Sati was an extravagant and sanguinary inference from the duty of conjugal fidelity, and that its prohibition is one of the chief benefits that the English Government has conferred upon India. Many of us further agree with Professor Wilson*, that it is a comparatively modern innovation, the text of the Rig Veda which used to be quoted as the authority for it rather discountenancing than enjoining the practice; and some at least hold that the kind of living death to which widows are still

* H. H. Wilson's Works Vol. II. page 270 *On the supposed Vedic authority for the burning of Hindu Widows, and on the funeral ceremonies of the Hindus.* See also *India 3000 years ago* by Dr. J. Wilson of Bombay, page 67, and Max Muller in *Oxford Essays*, 1856, page 22.

consigned, is more or less akin to it, and is an unhappy feature of Hindu society which demands reformation. It might be remedied, if instead of dooming widows to the funeral pile or to a life-long misery and neglect, society would encourage them to substitute for the domestic duties which have been broken off, the holy occupation of ministering to want, comforting sorrow, and conveying to desolate households the sympathy which they have learned from their own bereavement to feel for all who are visited by God's chastening hand.

But this is a mere hint which can hardly lead at present to any definite results. Reverting to a more general view of the subject, you will acknowledge that it is a great fact, pregnant with many weighty inferences, that without interruption, from the first century of our era to the nineteenth, there has never been wanting in Christendom a noble company of devoted women, who have given up their lives to the simple work of enlightening ignorance, ministering to pain, and living for others. The work may have been conducted in different centuries with more or less wisdom, it may have assumed various forms, and been carried on in different countries with varying energy, sometimes interrupted, sometimes found deficient in system, sometimes injured by prejudice or misconception, or by internal evils which were not sufficiently cared for; but it has never wholly failed, and now, in spite of the secular and material tendencies of the age in which we live, it seems to be fixing itself more and more deeply in the convictions of men as a necessary service, and to be receiving more and more plainly the blessing of God.

THE CLAIMS OF THE POOR.

GENTLEMEN,



I RISE, at the request of your Chairman, to address you a few words in support of the objects of the Shova the anniversary of which we are here met to celebrate. I have listened to its last annual report just read with the greatest pleasure and have been satisfied that it is one of the few practical institutions for the achievement of great ends to which a body of intelligent, wealthy, and benevolent men can well direct their attention, interest and support. It is a young and a tender plant which has found a genial soil, and which, with a little careful nurture, promises to bear golden fruits. It contains within itself the germs of greatness which may assume gigantic proportions, even far beyond your own expectations. Human calculation would tire in the attempt to assign a limit to the capacity for good of an institution conceived by Benevolence, lapped and nursed by Fortune and watched over by some of the wise men of the East, under the direction of an Almighty Providence.

The story of its birth and of the great ends it is destined to compass, is told in a few words. I quote those words from its annual report. "The Hitokorry Shova was established at Ooterparrah on the 5th April, 1863," the great object of its founders being to "educate the poor, to help the needy, to clothe the naked, to give medicines to the sick, to support poor widows and orphans." These are noble words which can only flow from noble and generous hearts. They indi-

that once the desire and purpose for an organized charity, dictated by *true-hearted* and not by *pompous* benevolence. Money is freely given in this country in many cases to feed Brahmins or the poor, to liberate people from jail and the like. But this is done idly and indiscriminately. It may encourage improvidence, it may support idleness and vice ; nevertheless it is popular, because it meets with outside applause. The Hitokorry is however destined, I fain and fondly hope, to give a new direction to Eastern Benevolence, to discipline our minds to the renunciation of ease, self-indulgence and leisure, and to subdue any unnatural hankering after personal fame and worldly renown. An unostentatious spirit is vital to the steady and energetic prosecution of any plans of benevolence. The Hitokorry Shova has already formed its plans in accordance with that spirit, and I shall advert to them in the order in which they are set forth in the report. First and foremost among them is the education of the poor. It is too common, alas ! it is too natural to entertain a prejudice against this class of our fellow countrymen. Many think that labor is their all. Nature has given them capacity but circumstances have denied them education. Labor is *not* the poor man's all ; for he has a vital interest in the property around him, and his labor could not without education command its reward. The uneducated poor, to every well-regulated mind, must ever be an object of warm interest and sympathy. Whether we think upon their numbers, their rude forces, or their formidable passions, it is impossible to deny them a large share of virtues.

The sympathy of the poor with each other, their true-hearted tenderness towards all who are more needy and more sorrowing than themselves, form their characteristic trait as well as impress upon them a high nobility. And

shall we despise those who bear one another's burdens, who weeping themselves, still weep for them who weep.

The claims of the poor to something more than the merest wants of life, to some thing that will contribute a motive to self-exertion and personal activity, energy and self-dependance cannot admit of a doubt. The age when ignorance was regarded as the mother of obedience, has faded into the past. It is now a sacred duty imposed upon the wise and the good to provide means for the education of the poor unlettered masses who expect something more in return for the labor they give for the enjoyment of the rich than to be merely housed and fed.

In a country like this, where popular enlightenment should subserve a great end—the establishment of social order—where the ignorance of the masses is a serious drawback on the general improvement of the country—where the relation between the zemindar and the ryot is that of the lord and the serf, nothing is of more immediate importance than a carefully devised scheme of popular instruction. The Indian ryot is not altogether a pauper living on public charity, but his condition is hardly better than that of a pauper. Educate him and he will rise to the position of a gentleman. But how is that result to be achieved? How are the poor to be educated and brought to understand their real position in society?—how can their enlightenment be made to react on the improvement of the higher and the middle classes? These are questions which I am sorry to say, have scarcely exercised the judgments of men who, by their position, wealth, and intelligence, are best able to give them a practical answer. They however shirk the responsibility and the question at issue is with whom the responsibility really lies? With the government of the country, or the wealthy and influential classes whom education has raised from the common level of their fel-

low-countrymen ? To enable me to answer this question I must lead you back for a minute to the history of popular education in England. It is there practically never left in the hands of the state, experience of continental kingdoms having shewn the dangers attendant upon an absolute resignation of this important charge in the hands of government.

The misfortunes of France have been caused more by its scholastic regimen than by any other apparent cause. The minister of public instruction appointed by the state is the sole judge and arbiter over the destinies of millions. He is the master of the university, the regulator of school discipline, the lord paramount over academies, royal colleges, commercial colleges, institutions, pensions and primary schools. He has dependant upon him the functionaries of education who are the inspectors general of public institutions. Under his jealous care nothing can elude the immutable order of a well-balanced system. The educatory machine moves incessantly a dull monotonous round which no extra exertion on the part of the children of the soil or the pupils can obstruct or alter with impunity. All is blind surveillance, and passive obedience to intellectual despotism—the worst of all sorts of despotisms. Under a restraint like this, the mind is discouraged and debased, and receives the stamp of a royal device and patriarchal authority. Liberty of thought and action,—the natural birth-right of man,—is thus debarred from the French nation which is merely a tool in the hands of the state, a prisoner to the existing ruler or government led captive by the training which it receives at the outset of life, which binds it to uniformity, impresses it with helplessness and satisfies it with dependance. The people can never shake off the yoke which presses on them heavily.

They may quarrel, they may mutiny, they may sometimes overthrow the government; but in all their revolutions they merely exchange one yoke for another. The sovereign is their only god, and the purchase of their freedom consists in substituting one idol for another. The high-souled reform of the nation, the regeneration of the people never enters into their thoughts.

But the educatory machine in England is worked by a different agency. The parent and not the state is the instructor of the young, the former as natural guardian being better fitted for, and better disposed to, the discharge of the duty than the latter. It has always been the ambition of the wise and the good in England to preclude state agency from the work of public instruction, and to extend the benefits of education to the humbler classes of her people, by as much as lies in their power without aid or intervention from the government.

But what is the general opinion here in regard to this sacred trust, that of educating our poor and working classes. Perhaps you hear but one cry, namely, that the government should educate the poor, the government should educate the rich—in fact the government should do every thing for the improvement of the country—the children of the soil being ever helpless as children are. This demand on the government is however but an unsatisfactory return for the good it has already conferred on the people, and does not speak well of those who having benefitted themselves do not seek to benefit others. Government has already done much for the education of the higher and the middle classes. It has been earnest in its endeavours, liberal in its grants, energetic in its movements to educate the higher and middle classes first, that they may, in their turn, undertake the education of the masses of their fellow-countrymen. “By purifying the circulation through these

vital organs," said Sir Charles Trevelyan, in one of his minutes now on the records of the Council of Education, "the whole system will be reinvigorated ; the rich, the learned, the men of business will first be gained ; a new class of teachers will be trained ; books in the vernacular language will be multiplied, and with these accumulated means we shall in due time proceed to extend our operations from town to country, from the few to the many, until every hamlet shall be provided with its elementary school. The poor man is not less the object of solicitude than the rich ; but while the means at the disposal of the Committee of Public Instruction were extremely limited, there were millions of all classes to be educated. It was absolutely necessary to make a selection, and they therefore selected the upper and middle classes as the first object of their attention, because by educating them first, they would soonest be able to extend the same advantages to the rest of the people. They will be our school-masters, translators, authors, none of which functions the poor man with his scanty stock of knowledge is able to perform. By adopting them first into our system, we shall be able to proceed a few years hence with an abundant supply of books, and with all the wealth and influence of the country on our side, to establish a general system of education which shall afford to every person of every rank the means of acquiring that degree of knowledge which his leisure will permit."

What was said by this good man thirty years ago is now felt to be a necessity. The government of the country has done its duty to the wealthy and influential classes of its subjects, by establishing for their benefit, schools and colleges in different parts of the country. It now rests with them to extend the same advantages to the lower classes and thereby aid the cause of India's material and moral prosperity. There are now amongst us men eminent for

their learning, wealth and ability, to whom we naturally look forward. But the truth must needs be told. We miss in them that feeling of kindness and sympathy for the poor which is the only condition necessary to their improvement. In the eye of the zemindar, the ryot is but a slave, a being ordained to be miserable, and to be ever dependant upon his master whose land he cultivates for food and raiment. The condition of the Indian peasantry and the agricultural classes is indeed hard—too hard for endurance. The oppressions of the zemindar upon the ryot have become almost proverbial. Indian rural life presents a picture to the eye at which, in the words of Edmund Burke, “reason is staggered, morality is perplexed, and from which humanity recoils with a shudder.” Our visions of Arcadia and pastoral bliss vanish as we approach the wigwam of the Indian peasant. Instead of beholding him a gay and thoughtless butterfly floating on summer’s noon-tide air, we find him a despicable worm creeping on the earth, and trampled upon by every reckless passer-by. He sometimes resents the outrage by a venomous bite that costs the life of his aggressor. Brought up in chains, under tyranny and oppression, the ryot becomes in turn the perpetrator of the grossest crimes which can blacken humanity. He is thrashed and scourged in the day by the merciless zemindar; in the night he assumes a formidable shape, despises all law and order, and with all the brutality of a savage plunges his sword or tomahawk into his oppressor’s breast. He is a thief, a thug and a dacoit whom no law can reach, no blow can annihilate. Thus it is that crimes of the deepest dye are hourly perpetrated in the villages, and the life and property of dwellers in the interior staked at every moment. The zemindar and the ryot are engaged in continual hostilities,—harvests are blighted, villages deserted, hamlets burnt, and the trophies of the plough

displaced by those of clubs and matchlocks. Whence then is this order of things? The question is easily answered—Popular ignorance that great obstacle to the progress of native society. If the zemindar would have himself housed in peace, fed in security and clothed without apprehension, he must house, feed, and clothe the ryot in security too. He must give him an education which will elevate his mind, and enable him to enjoy at his leisure that harmless pleasure which the bare gratification of our brute appetites cannot afford—a pleasure which the mind feels at the approach of dawn or summer's twilight eve, enlivened by fancy and imagination and elevated by reason and philosophy. Unless the zemindar undertake to educate the ryot, it is hopeless to see him at any time better-souled or better-informed than he now is. But there is, perhaps, no part of the world where so much wealth and influence is possessed by persons so little able to make a good use of it as in the interior of Bengal. The substitution of a single humane and enlightened land-lord would be a blessing to a whole neighbourhood.

But I shall no longer dwell upon this painful subject. It is a matter of congratulation that the public spirit and charity which we elsewhere desiderate, have found in this small but beautiful town of Ooterparrah a manifestation which speaks volumes in favor of its noble-minded and distinguished citizens. The Hitokorry Shova is one of the many instances of their large-hearted charity, public spirit and munificence. Their good works will tell their story to posterity and will be an example for living and future generations to follow in their wake.

Having shewn that the education of the poor devolves upon the rich, I shall crave your indulgence to the consideration of the question, what education is best suited to the poor.

"Any education," says Dr. Hamilton, "is nearly worthless that is not intelligent. The mind must be roused to think for itself. Mental digestion alone produces mental life and health. Violent efforts of the memory often discourage even that lower faculty without strengthening the judgment. Let children be taught the reasons of facts ; and when this cannot be done, let it be shown how reasonable is the ground of conviction in their approved truth. Why is it ? how can it be ? wherefore do you believe it ? are questions which will draw up the soul from its depths and liberate it from its fetters. This is the true praxis of education. Self-knowledge, self-control, self-examination, self-culture, will follow as effects. You have caused him who was created a thinking being to think ; you have done reverence to the Father of Spirits in the evocation of that spirit.

"We feel that something is wanting to raise the national mind ; it is oppressed by habitude and phlem. We desire to bring it to a greater force and quickness ; it stands in need of activity, perception, vigor. It has been long overborne by tyranny and besotted by ignorance ; it has been bought by gifts and suborned by bribes. There is a natural love of justice and tone of generosity in it ; it strongly inclines to independence but it has been worn down by neediness and beaten down by rigor. It comprehends all the elements of greatness ; it resembles some noble falchion capable of the keenest edge and the brightest polish, uninjured in its temperament even now, but blunted, soiled, threatened to be corroded by its rust. It must be awakened to exertion, and to greater confidence in itself ; it must be drawn from the low amusements which have hitherto been its only recreation. It is ready for growth in knowledge, it invites, it even thirsts for, education. Stimulated by that discipline which we inculcate, it will rouse from sloth ; possessing the motives for improvement, its inborn energy

will vindicate itself, it will stand forth in its vivacity without lightness, in its strength without violence, in its stability without grossness, in its activity without lubricity, in its ascendancy without disdain."

"It is almost unnecessary to say, that the instruction of the child is as nothing, save as you imbue him with the taste and furnish him with the means of self-education. Every man, says Gibbon, who rises above the common level has received two educations :—the first, from his teachers ; the second, more personal and important, from himself ; once inspired to think wisely and religiously, it is not very probable that he will relapse. Study will be his habit and piety his inner life. Should he never rise in society, he has already gained an honorable and a holy position, he carries with him a blessed charm to lighten toil, to assuage affliction, to purify attachment and to conquer death. He has been trained in the way in which he shall go, and when he is old he will not depart from it."

The poor of India must not only be taught to read and write, but trained up as moral and responsible beings who knew their duty to God, to themselves, and to their fellow-creatures. Moral training should go hand in hand with intellectual culture. In a system of popular education it is not necessary to introduce the higher branches of science and literature, which the wealthy and influential classes only should cultivate, having by their more fortunate position in society ample means and leisure to devote to intellectual acquirements which the indigent and working classes can scarcely command. But the morals of a nation can only be elevated by a well-regulated system of public instruction which is now wanted to regenerate Indian society. The mind should be as much an object of concern as the heart, though in the systems of education adopted in our public schools for the higher and the middle classes, the

latter is so sadly neglected as to leave the tone of public morality in India almost unimproved. To suppose that the cultivation of the intellect will be followed by a happy influence on the morals of a nation, and that it is of itself calculated to check the growth of vice is an altogether false philosophy, and presupposes a total ignorance of human nature. On the other hand it is more probable that a mind once liberated from its fetters and taught to think wisely and religiously will take an elevated turn and evince not an unnatural aptitude for those refined enjoyments which spring from pure intellectual exercise. If therefore any education is to be given to the masses of our people, it must be one which would most effectually alter their evil habits and propensities, establish among them social law and order, and strengthen the tie which would bind them to the performance of duties which, as subjects of this earth, they owe to their king, and, as those of the world to come, they owe to their God.

But all this may appear an Utopian theory unless we can satisfactorily prove that the masses can be enlightened with as great success as has attended the efforts of our humane Government in the education of the higher classes of native society. But where is the impediment to this noble undertaking ?—the people surely do not oppose it now as they might have done a few years back. There is an evident indication from all quarters that the people want instruction. They are most feelingly alive to the discomforts of their present situation. They have been made to understand that their misfortunes are principally owing to their own ignorance—that if they knew how to read and write, they would have been spared the necessity of signing their names in important documents and title deeds by false and gratuitous marks, and thereby have protected themselves from forged signatures and arbitrary taxes and im-

sitions. If therefore we apprehend no opposition from the people, what possible show of resistance can be offered to the progress of educational movements. Let the shoulder be applied to the wheel and all obstacles, fancied or real, will disappear. Let the learned and the rich of this land join in the enterprize which is worth all that can be spent upon its execution, and its fruits will appear within an incalculably short period. ●

In order to be able fully to appreciate the expected happy results, let me impress upon you that the children of the poor would be brought up to honor, usefulness and virtue, instead of rotting for ever in that dreadful gulf in which they are now plunged by the circumstances which surround them, by permitting them to receive at our hands the benefits of that education which we can most successfully impart to them without making ourselves dependant on the state. The wealthiest zemindars who are now the greatest sufferers from the effects of popular ignorance, should, with a due regard to their own interests, if other motives apart from selfishness be not sufficiently strong to draw them to the enterprize, undertake the education of the ryot and the pauper at any cost, as the advantages that would flow from the increased knowledge and improved good conduct of the ryot would more than repay their first outlay, and enable them to employ with profit to themselves and to the country in general a race of well-trained subjects to the peaceful pursuits of agriculture to which there are so many impediments at present from the prevalence of mutual misunderstandings—oppression and disobedience—injustice and lawlessness—force and retaliation. There should be in every district within a limited area a school-house for the education of the poor. The zemindar should impress on all his ryots the necessity of sending their children there as a matter of duty, in order that no laxity may

be endured from the apathy or indifference of the people to learn. But to surmount most effectually the obstacles that may be offered by the stubborn idleness of the few who may not easily be persuaded to appreciate the value of education, there should be held out promises of pecuniary favors or money rewards to the most qualified students in the district pauper schools, which will have more effect than any other expedient.

As to the kind of instruction to be given, I have already maintained that there should be a system of moral training which will so elevate the condition of the Indian peasantry that they may discriminate between good and bad, between right and wrong. All religious instructions should of course be carefully excluded—at least for the present, and only practical truth inculcated without reference to any of the superstitious beliefs of mankind—a truth that will abide by its own test, being warranted by philosophy and experience. Religious and moral teaching apart, the labouring classes, for whom the higher branches of learning are not a necessity, should be taught to read and write in their own vernacular, with a two-fold object—first, that they may derive some knowledge of themselves from books and pamphlets touching their own occupations as laboring and industrious classes. The industrious classes in this country are chiefly agricultural and to them nothing can be of greater value than lessons of a practical kind in the art of cultivating the soil and improving the harvest. Such lessons can be imparted most effectually through the medium of books. Some may deride the idea of a “bookish theoric” for a rude peasantry like that of India. But I can only meet their derision with contempt. I regard them as men who are far behind the age; who are too selfish to be liberal; and who are too narrow-minded to be able to think rightly on the subject. Book knowledge is as essential to

the pursuit of a trade or profession as the knowledge gained through practice. The latter kind of knowledge by itself, however, is more akin to the instinct of animals than any thing belonging to rational creatures. The unlettered mechanic, artisan or ploughman follows his profession and does his business much in the same way as the architects of the ant-hill or the bee-hive. There is a dull uniformity about his work which under the slightest pressure or variation of circumstances and position comes to a stand still until things resume their wonted course. Thus man the lord of the creation, is degraded into the condition of beasts of burden, yoked as it were to a country oilmill incessantly going their round blindfold. When that large-minded statesman who now fills the office of Lieutenant-Governor of our country, conceived the idea of an Agricultural Exhibition he did calculate upon results which but for the ignorance of the agricultural classes would have by this time astonished the world by their magnitude. These Exhibitions have gone a great way towards exciting curiosity, and the desire to learn and to improve. It now rests with us to bring within their reach the means whereby that curiosity and that desire may be gratified. Let Agricultural schools be sown broadcast over the land, let the classes of people for whom they are intended go through a regular course of instruction, theoretically and practically, in that branch of knowledge, let them be taught to think and to speculate and then be left to their own resources. They will, I am confident, with the improved knowledge and appliances at their disposal be able to "produce two blades of grass where one grew before."

In speaking of Agricultural schools, I cannot refrain, and I shall not excuse myself if I did refrain from pointing your attention to the munificence and large mindedness of your distinguished fellow-townsmen who lately went up to Government with an offer, no less remarkable for its liberality

than for its appropriateness, for the establishment of the first Agricultural School in India. The Government perhaps felt its hands tied up by the terms of the Education Despatch from alienating any portion of the public funds applicable under existing rules to purposes of general education towards the furtherance of a special object like that contemplated by Baboo Joykissen Mookerjee. But that I hope will not be felt as a discouragement or as an obstacle to the carrying out of the project which commends itself as much to the good will of the Government as to the support of private benevolence.

In teaching the ryot to read and to write, I said, that there must be a twofold object—first, that they may derive from books a knowledge of their own profession and its requirements,—second, that they may, in the course of their professional instruction, improve so much in general knowledge that they may be able to conduct themselves with grace and propriety towards the society of which they are members. In these days of mental activity, books, tracts, and newspapers are not only a help and a necessity to learning and to learned men, but they are the common channels of instruction to the masses who, more or less, are indebted to them for their knowledge of things and objects, for their obedience to the laws of the country and for their cultivation of sympathy and fellow-feeling for one another. “The instruction obtained from newspapers and political tracts,” says John Stewart Mill, “may not be the most solid kind of instruction but it is an immense improvement upon none at all. What it does for a people, has been admirably exemplified during the cotton crisis, in the case of the Lancashire spinners and weavers, who have acted with the consistent good sense and forbearance so justly applauded, simply because, being readers of newspapers, they understood the causes of the calamity which had befallen them,

and knew that it was in no way imputable either to their employers or to the government. It is not certain, he continues, that their conduct would have been as rational and exemplary, if the distress had preceded the salutary measure of fiscal emancipation which gave existence to the penny press."

I have up to this moment advocated the claims of the able-bodied *poor* or the labouring classes of our country, who work and earn their own livelihood and to whom education would be a boon. But there is another class of our fellow-countrymen who are more directly the objects of our sympathy, and whose wants are of a material kind though not less pressing and urgent than those of others to whose case I have already drawn your attention in so prominent a manner. The class I now allude to comprehends the able-bodied *destitute*, who, from want of employment and the necessary means of livelihood, go starving. Education is not their want, for it would be ridiculous and false philanthropy to talk of educating men who are dying of hunger and have not the means of keeping body and soul together. They ask for bread, and it would be cruel to mock them with a stone. In all civilized countries, it is admitted to be a right principle that the rich should support the needy. It is almost a divine law that human beings should help one another and the more so, in proportion to the urgency of the need; and none needs help so urgently as one who is starving. The claim to help, therefore, created by destitution, is one of the strongest which can exist. The wildest speculations respecting the foundation of morals or of the social union will not absolve us from this solemn and sacred duty. It may be true that if the habits of all classes of people were temperate and prudent the demand for help would have ceased to exist. But what if thoughtlessness, intemperance and improvidence were the immediate causes of the destitution of a people? What

if it were so? Will it be an argument for those in affluence, enjoying a superfluity and a superabundance of wealth, to hold back and say—why should we help them, they have brought on their misery by their own folly. Thank Heaven! human nature is inherently neither so selfish nor so mean as not to be moved at the sight of distress, or not to be roused to activity to bring relief within the reach of the sufferers without reference to the immediate causes of the suffering. In what light can we regard men, who, on seeing a house on fire with the imminent risk of its inmates being burnt to ashes, or a boat full of human lives at the point of sinking and consigning its burden to a watery grave, instead of rushing to the rescue, were to hold a council of deliberation as to whether the blazing house before them was not an abode of robbers who deserved to die a fiery death, or whether the sinking vessel was not a boat of pirates of whom society would be glad to be rid. In much the same light shall we regard men who tie their purse-strings at the approach of improvident wretchedness and cover their want of charity with a plea. But all wretchedness is not owing to improvidence. It is a misfortune incident to every society; arising from either limited production, over-population, unsatisfactory diffusion of property, or from the accidents of drought, inundation or famine. But be the causes what they may, there is *prima facie* the amplest reason for making the relief of so extreme an urgency as certain to those who require it, as by any arrangements of society it can be made. You know what those arrangements are in the British Islands, the land of our rulers, the seat of that sovereign authority which holds under its sway and beneficent care the destinies of 180 millions of people, the centre of commerce and civilization, the picture of moral and material prosperity upon which admiring Europe looks with awe and wonder. The principle of the arrangements

as applied to a system of public charity is contained in the Poor Laws of England. The relief of her able-bodied destitute is not left to individual charity which almost always does either too little or too much ; which lavishes its bounty in one place, and leaves people to starve in another. Some of the highest authorities in Political Economy consider it to be desirable that the certainty of subsistence to those in want should be held out by law rather than that their relief should depend upon voluntary charity. Their argument is made the more forcible by the consideration that since the state must necessarily provide subsistence for the criminal poor while undergoing punishment, not to do the same for the poor who have not offended is to give a premium on crime.* But the strongest reason for legal charity is that it renders it impossible for any person except by his own choice to die from insufficiency of food. The state acts as trustee of a public fund, administers it by an equitable and a well-defined law, distributes it with an equal hand with reference more to general than to individual interests, guarantees all persons against absolute want, provided always that the assistance is not such as to dispense with self help, by substituting itself for the person's own labor, skill and prudence ; for if assistance is given in such a manner that the condition of the person helped is as desirable as that of the person who succeeds in doing the same thing without help, the assistance, if capable of being previously calculated on, is mischievous. If the condition of a person receiving relief is made as eligible as that of the labourer who supports himself by self-exertion, the system strikes at the root of all individual industry and self-government. It creates a feeling of dependance and reliance on others, deadens the active faculties and makes the recipients of habitual aid sink into a state of desperate inertness and help-

* Principles of Political Economy—By John Stuart Mill.

lessness. These reasons so outweigh with me, in the consideration of this subject, the arguments in favor of individual or private charity, that I do undoubtedly advocate state agency and state interference in the regulation of an organized charity for the relief of public distress. I am too jealous of such interference in the social affairs of a nation when it is pushed beyond legitimate bounds, when it encroaches upon a province which belongs more to the governed than the governing body, when it unnecessarily thrusts upon the former compulsory duties which detract from the merit of private enterprise and benevolence. But I am yet too sensible of the weakness and imperfectness of human nature to admit that a man will periodically and ungrudgingly and systematically part with any portion of his earnings and income to relieve distress without pressure or compulsion. Charity, like all other human sympathies, is moved, though not often and by the same object, by direct and personal appeals. Unseen and remote distress seldom works powerfully upon the feelings, and is therefore less pitied and less thought of. I do therefore strongly believe that the duty of affording relief to paupers devolves upon the government which has as much a right to levy contributions from its subjects who are not paupers for the relief of those who are, as it has a right to levy taxes for the administration of justice and good government. But Sir, while I advocate a state agency for the administration of public charities, I do not undervalue the importance of private charities by bodies single or corporate. They distinguish between one case of real necessity and another, they discriminate between the deserving and the undeserving indigent. They give more where more is due and abstain from cases which come within the meaning and cognizance of state relief. And such I believe are the chari-

ties dispensed by your Association; for if I mistake not, it purposes to support poor widows and orphans, not of paupers and the utterly destitute, but the widows and orphans who might have seen better days in their lives, and to whom the pittance doled out by laws and regulations by the dispensers of public charities might be an inadequate relief. Private charity cannot find worthier objects than those whom you have undertaken to relieve.

I shall touch upon another point before I conclude. From the able-bodied poor and the able-bodied destitute, the mind naturally turns to those whom God intended for the highest purposes of life, but whom the accident of misfortune has cast upon society as an encumbrance. The sick, the decrepit, the deaf, the dumb and the blind are objects of tender solicitude. Already stricken down by the hand of Providence, their poverty intensifies their suffering and turns life into a burden. To them relief is due not on the principle which governs the distribution of public relief funds among the able-bodied destitute, but on a higher principle, *viz*, that of giving them with an unstinted hand with a view that their position may be made as comfortable as it is possible for one man in the full possession of his active powers and organs to make for another who is destitute of them. Charity in their case can not be reduced to regulation limits. To whom much is given, of him much shall be required. But what are the arrangements in our country for helping these pitiful objects. They are, like all mendicants, left to casual charity. They besiege our doors, they pitifully cry in our public streets and thoroughfares, and we send them away sometimes with a small coin, sometimes with a threat to call the Police upon them for unlicensed begging. God help us from licensed beggars! If the necessity for an organised charity is more needed in one case than in another, it is in the case of the *disabled*

destitute whom I have introduced to your notice. Their number cannot be large, though I have not the requisite data upon which to calculate the proportion they bear to the able-bodied of our country. But be their numbers what they may, the founding of hospitals and asylums where they may be cared for is pointed to as a duty which should take precedence before all works of charity. Our millionnaires and billionnaires, Rajahs and Maharajahs, Ranees and Maharanees have spent a great part of their wealth in temple endowments, in ghats and sanctuaries. But can we call to mind a single instance of an endowment for the relief of the disabled destitute. I, for my part, am not aware of any, and shall be glad if some one of my audience here will either rectify or ratify my impressions on the subject. But I do fervently hope that the Hitokorri Shova is already acting upon the principle which I have hinted at for the consideration of those who may act independently of you and who may now or hereafter seek objects upon which to bestow their charity.

I have thus, Sir, most imperfectly though sincerely endeavoured to say a few words in behalf of the Hitokorri Shova. If my ability had been equal to my wishes, I would more worthily have performed the duty which your kind confidence entrusted to me. But my prayer is that every one connected with this Association will do his duty in the respective sphere he is called upon to occupy. Great is his responsibility and in proportion to its greatness he will meet with his reward. There are dangers and difficulties with which good works are always beset; but they vanish like breath on the polished mirror when confronted by virtue, fortitude and endurance.

"Let us, then, be up and doing,
With a heart for any fate;
Still achieving, still pursuing,
Learn to labor and to wait."

